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INSIDE DOPEby **GEORGE F. TAUBENECK**

Story of the Week
Gags of the Week
Contribution of the Week
Looks Like They're Growing Up
International Obligations
More of Them Should See Us
The "Ah's" Have It
Historical Footnote
Could Happen to Anybody
Essay on Exhibitions

Story of the Week

Gene Genius boomed up from the ranks of the obscure. Onaccounta he had little education or background upon which to base his startling success, he was lauded as a "self-made man."

A trade paper editor, having discovered that Gene Genius was an unusually well-read man, asked him how he had found enough time to study and digest so many worthwhile books while working so hard.

"I've always kept a good book on my desk," the new President of the Widget Corp. explained. "I read during those long pauses between the ringing of my telephone and the time the other fellow finally gets on the line."

Gags of the Week

On the mirror behind the bar at Nick's across the street is this notice: "If you are enjoying the television show, you'd better stop your drinks!"

Those who talk by the yard but think by the inch deserve to be moved by the foot.

Contribution of the WeekMontgomery County
Worcester, Pa.

Editor:

A patient of my husband's, he being a country doctor, just made an auto trip through New York state and on his return he came to tell of his trip, which was the first he made since 1920.

In describing a restaurant which had much impressed him by its elegance, he said, "It sure was fine and they had air conditioned heat." Thought you might enjoy this.

(MRS.) CHRISTINE SHEARER

**Looks Like They're
Growing Up**

In times past this column has lambasted labor union bosses and their political henchmen for practices and policies harmful to the general public. It's a pleasure, therefore, to note that the American Federation of Labor is warning its members that they must take care lest new wage demands force employers into bankruptcy.

Looks like the boys are growing up, and becoming more sensible.

As we have suggested often, when Labor is unreasonable it will hurt itself in the long run. But when unions are sensible and reasonable, we'll all benefit.

This new policy is outlined in *Labor's Monthly Survey*, an official A.F.L. publication, which observes:

"Competition is back; prices can no longer be raised indiscriminately to cover higher costs. Business executives show new interest in cutting expenses. Production per man-hour is now rising sharply. These are all healthy developments which can bring business to its normal post-war balance."

"However . . . weak companies, with high costs and declining sales may be forced into bankruptcy, thus

(Concluded on Page 8, Column 1)

**Big Star Revue Set
For All-Industry
Exposition**

WASHINGTON, D. C.—Entertainment in the form of an All-Star Revue to be held in the Atlantic City Auditorium on Monday night, Nov. 14, will be open to all those registered at the Sixth All-Industry Refrigeration and Air Conditioning Exposition, Nov. 14-18, in Atlantic City, it has just been announced.

Addition of the entertainment feature was decided upon at a recent meeting of the board of directors of Refrigeration Equipment Manufacturers Association, sponsor of the All-Industry Show. The Revue will feature a big name from stage, screen, or radio. Details will be announced at a later date.

The hall where the show will take place is part of the Atlantic City Auditorium, and will hold 5,000 or more.

The show directors said the entertainment feature, which will be free to all who have registered, will furnish a place for everybody to get together early during show week.

**Norge Brings Out
New Range Line**

DETROIT—A complete new six-model line of electric ranges is announced by Norge Div., Borg-Warner Corp. These models, according to H. L. Clary, director of sales, have been redesigned, improved, and carry more attractive suggested retail selling prices than the comparable models which they replace.

The models range from a 20-in. apartment model, which carries a suggested retail selling price of \$164.95, to a 38-in. master deluxe divided-top model, which is built to sell for \$299.95.

The feature of this four-way automatic deluxe range, in addition to the divided top, is a center oven with "picture window" and a new sturdier structural base that also provides added toe room. Titanium porcelain enamel is being used for the exterior

(Concluded on Page 4, Column 5)

**Air Conditioned Hospitals
Cooler Operating Rooms, Patients Quarters
Needed To Insure Comfort, Doctor Says**

BEVERLY HILLS, Calif.—"Any person is justified in refusing to undergo an operation of election in a non-air conditioned operating room."

So declared Dr. William Brady, in one of his widely syndicated newspaper columns on health matters, which appeared recently in many newspapers throughout the country. Dr. Brady's writings are syndicated by the Pioneer Press Bureau of Beverly Hills.

"When a person is sick he requires comfort," Dr. Brady wrote. "His comfort should determine the need of heat or coolness."

"Barring actual or partial freezing, coolness or cold is not a menace to the sick person. Public demand should soon result in making air conditioning an absolute essential of a modern hospital."

Dr. Brady's comments were made as part of a column in which he published a letter from a physician who said that a new hospital in which he was practicing was to be air conditioned, but that he saw trouble ahead because of the fact that nurses and even many doctors were laboring under an old phobia against letting any breeze hitting a physician who was operating, or a patient who was being operated on or recuperating from an operation.

"Now if ever a patient requires air, and coolness, it is after an operation

**Crosley Plans
New Products to
Round Out Line**

(See Picture page 4)

CINCINNATI—Addition of new products including electric water heaters, garbage disposers, as well as added models of home freezers and kitchen sinks and cabinets, will be announced at a national sales convention for Crosley distributor principals and sales executives to be held Sept. 19 and 20 in Cincinnati.

Announcement of the plan for the distributor convention was made in a special message delivered over a nation-wide telephone network by W. A. Blees, vice president of Avco Mfg. Corp. and general sales manager of the Crosley Div. Blees said that the addition of the new products which will be introduced at the convention is in accordance with the company's policy to round out Crosley's line of kitchen appliances.

In his telephone hookup talk to some 1,200 distributor personnel gathered in the offices of 87 distributors throughout the country, Blees also disclosed plans for 20 regional dealer meetings that will be held between Sept. 22 and Nov. 20 in principal cities.

Fall promotion plans call for an expenditure of \$1½ million on advertising and promotion, "the largest advertising campaign in Crosley's history," Blees declared.

**Westinghouse Steps Up
Refrigerator Output 50%**

NEW YORK CITY—Beginning Monday, Aug. 22, Westinghouse Electric Corp. will increase its production of electric refrigerators 50%, according to press reports here quoting George H. Meilinger, household refrigeration manager.

The new production rate will be continued until the beginning of October, Meilinger was quoted as saying. At that time a gradual production changeover to 1950 models will begin, it was stated.

**Sears Offers \$5 Down
24 Mos. To Pay on
Items Under \$200**

CHICAGO—Sears, Roebuck and Co. has lowered credit terms of major appliance items to \$5 down and up to 24 months to pay, on appliances priced up to \$200.

On appliances which are priced at more than \$200, the down payment will be \$10. Products covered by these terms include refrigerators, ranges, television sets, washers, and vacuum cleaners.

The easing of the terms on appliances sold by Sears follows closely a similar move made by Montgomery Ward & Co.

**'First' Locker Show
Opens Aug. 22**

CHICAGO—Tenth annual convention of the National Frozen Food Locker Association will get underway at 7:30 next Monday morning with the first of a series of breakfast sessions and clinics that have been programmed for the three-day meeting at the Stevens hotel here.

This is the first convention conducted by the locker operators themselves, the group having split with the Frozen Food Locker Institute, which has sponsored the exhibits in the past.

Exhibits, however, will be featured at the NFFLA convention, some 34 firms having signed for exhibit space.

The exhibits are scheduled to open at 1 p.m. Sunday, Aug. 28, in advance of the convention meetings proper, and at 9 a.m. on Monday and Tuesday. NFFLA has also arranged for registration on Sunday from 10 a.m. to 8 p.m. in the lower lobby of the Stevens.

In addition to the exhibits, breakfast sessions, and clinics covering a wide variety of topics of interest to

(Concluded on Page 28, Column 3)

**New Rail Rate Boost Seen
Speeding Shift to Trucks**

WASHINGTON, D. C.—The latest increase in rail freight rates, approved by the Interstate Commerce Commission effective Sept. 1, seems likely to give new impetus to the use of long-haul refrigerated trucks for carrying quick-frozen foods.

The I.C.C. authorized freight rate increases averaging 3.7%. Added to the "temporary" increase of 5.2% okayed earlier this year, freight rates on the average will be 9.1% higher this fall than they were a year ago. The exact percentage boosts vary in different sections of the country. But there is no question that they mean more costly handling charges for frozen food distribution, and will accentuate the shift to highway transport of frozen products.

The I.C.C. itself has acknowledged that diversion of frozen food traffic

(Concluded on Page 28, Column 1)

**Home Freezer
Gets Publicity
In Capitol Quiz****Vaughan's Choice of Home
Freezer as Gift Indicates
'High Desirability' Factor**

DETROIT—While the sensational stories in the daily press on the gifts of home freezers to Maj. Gen. Harry Vaughan and others in the Truman high command may prove shocking to those who are concerned about the integrity of those highly placed in the government, the stories have given a wealth of good publicity to the home freezer industry.

In line with the old saying among those who know the value of publicity "I don't care what you say about me as long as you spell the name right," the home freezer has had the opportunity of being splashed in headlines across the country.

One of the things that must be inferred from all the publicity is that home freezers must be a very desirable appliance, if they are being used to wheedle favors from high government officials.

One story on the matter, appearing in the *Chicago Tribune*, expressed some bewilderment over the use of home freezers for such purposes. Said this story:

"One of the unanswered questions, other members of the committee said, is why officials of the Verley Perfume Co. in Chicago chose to make gifts in the form of freezers."

The answer to that should be pretty simple: home freezers were presented as gifts because they were

(Concluded on Page 4, Column 1)

**Sales of Home Freezers
Exceed May Total 33%**

(See Table page 25)

NEW YORK CITY—June sales of home and farm freezers by 28 firms reporting to National Electrical Manufacturers Association totaled 27,735 units, a gain of 33% over the May figure.

Sales for the six months period totaled 147,964 units, it was reported by Nema.

Models in the 7 to 9-cu. ft. category lead all other sizes in the June tabulation, although the 11 to 13-cu. ft. and the 13 to 17-cu. ft. classifications were close behind.

The totals for June included 1,106 models in the upright type of home freezer.

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Plan for Selling Appliances
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Public Sees the Freezer In a New Light

Chicago Sunday Tribune **CITY FINAL**

VAUGHAN'S FREEZER STORY!*U! Aboard Train; Continues Trip East*

Medical Aid SENT TO ME
Given Him at
2 Stations BY FRIENDS.
HE ASSERTS

The U. S. Senate's investigations of the "5 per centers" turned up a lot of free publicity for the home freezer industry, as witness this page 1 streamer headline in the Sunday, Aug. 14 issue of the *Chicago Tribune*, which likes to call itself "The World's Greatest Newspaper." (See details in story in column 5).

Frozen Pig, That Is Weight-Guessing Contest Spurs Traffic In Store

NIAGARA FALLS, N. Y.—A pig weight-guessing contest and award of frozen chickens with each large appliance purchase stimulated sales at the Sears Roebuck & Co. store here.

A freshly dressed frozen pig was on display in a freezer in the appliance department and the person guessing its correct weight was awarded the pig. Anyone visiting the department was eligible to make a guess on the weight and fill in a ballot.

In addition, two quick-frozen chickens were given with each purchase of a freezer or refrigerator, deluxe ironer, deluxe sewing machine, radios over \$95, and ranges over \$150.

One chicken was given with each purchase of a stand ironer, standard sewing machine, ranges under \$150, radios from \$49.95 to \$95, and all vacuum cleaners except hand models.

Flood Sweeps Town, But Freezer Ignores It

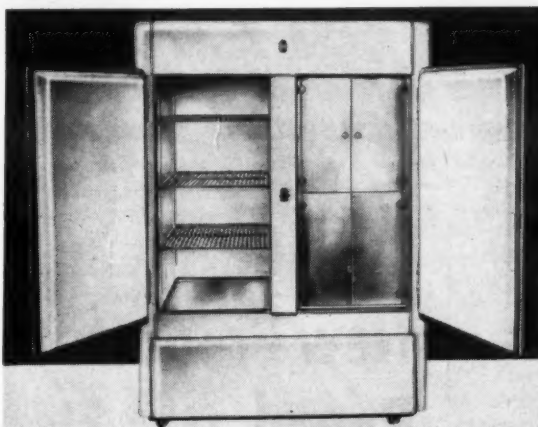
BRIDGEWATER, Va.—Listeners to station WSBA here, heard the Reverend M. G. Sanger praise the construction and food preserving qualities of his Ben-Hur home freezer as he was being interviewed about his experience when the North River overflowed and inundated Bridgewater recently.

During the flood, which took at least one life, smashed autos and garages, and moved a home, Rev. Mr. Sanger's Ben-Hur freezer was floating around in 5 to 6 ft. of water in his basement.

After Rev. Mr. Sanger was able to inspect the damage he reported, "The food was absolutely undamaged and there was hardly any water in the freezer. I really got to hand it to that freezer. It's running in tip-top condition—all I had to do was plug it in as soon as the electricity was re-established."

Rev. Mr. Sanger, though 81 years "young," is a practicing minister.

Simplex Mfg. 'Col-Temp' Combination Model Provides 19.5 Cu. Ft. of Space for Storage



The 11.5-cu. ft. regular refrigerator section of this model is on the left, and the 8-cu. ft. freezer section on the right. They are separated by an insulated divider and operate from individual condensing units.

OAKLAND, Calif.—A new "Col-Temp" combination refrigerator and home freezer, said to occupy only slightly more floor space than ordinary refrigerators, has been introduced by Simplex Mfg. Co. here. The normal refrigerator section

and the low temperature freezer section are separated by an insulated divider which runs from the top to the bottom of the cabinet. Each side has its own door. The freezer compartment has four sections.

There is 8 cu. ft. of freezer space, and 11½ cu. ft. of normal refrigerator space. Two hermetic condensing units supply the refrigeration for the combination model.

The freezer section will hold up to 350 lbs. of frozen foods, it is claimed. Ice cube production can be at a number desired by the user. A cold plate is used to assure fast freezing.

The cabinet measures 28 in. deep, 49½ in. wide, and 70 in. high. Door openings are 19 by 40½ in. Hardware used is heavy brass chrome plated.

Insulation is 3 in. on the normal refrigerator side, 5 in. in the freezer section. Shipping weight is 740 lbs.

Congress Will Study Need for Repeal of Miller-Tydings Act

WASHINGTON, D. C.—The need for repealing the Miller-Tydings Act will be studied by a Congressional subcommittee this fall.

The Miller-Tydings Act authorizes states to pass laws permitting manufacturers of trade-marked products to set the retail price of these products.

Representative Celler, New York Democrat and chairman of the House judiciary committee, recently revealed that such studies are on the agenda of his subcommittee investigating monopoly.

June Freezer, Range, Washer Shipments Gain Over May In St. Louis

ST. LOUIS—Shipments of household refrigerators by 29 St. Louis-area distributors to dealers in June totaled 5,361 units, according to information gathered by the Union Electric Co. of Missouri, utility company here.

The refrigerator total was slightly under the May total of 5,745 units, but was better than any other month this year.

Home freezer shipments showed a gain over May, as did ranges and automatic washers. Water heaters, conventional washers, and vacuum cleaners were below May figures.

Following is the record by appliance for May and June, and totals for the year to date:

Philco Net Income Rises to \$1,083,000 for Second Quarter

PHILADELPHIA—Sales of Philco Corp. in the second quarter of 1949 totaled \$50,261,000 and net income was \$1,083,000.

In the first quarter of 1949, sales of Philco Corp. were \$53,006,000 and net income amounted to \$915,000. In the second quarter of 1948, sales totaled \$65,956,000 and the earnings balance, after a tax-paid reserve of \$1,000,000 for inventories which was used at the end of the year and a reserve of \$191,000 for research, amounted to \$2,256,000.

Appliances	June	May	Year To Date
Ranges	677	481	3,643
Water Heaters	404	466	2,190
Refrigerators	5,361	5,745	27,161
Home Freezers	246	193	1,055
Automatic Washers	298	183	1,811
Conventional Washers	1,276	1,903	8,840
Clothes Dryers	68	34	393
Ironers	472	419	2,124
Vacuum Cleaners	735	866	6,111
Electric Sinks	280	57	585
Dishwashers	22	45	255
Television Receivers	1,497	1,644	10,450
Roasters	123	160	736
Coffee Makers	319	383	2,788
Electric Blankets ..	3	3	109



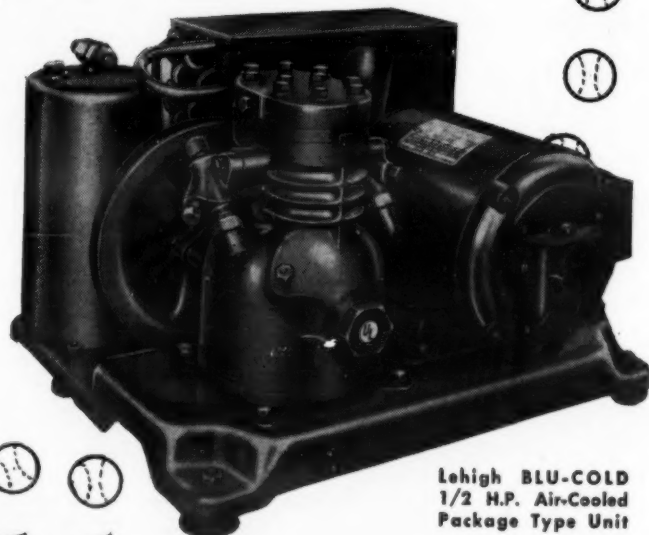
"IT TAKES CONTROL!"

Says the LEHIGH TEAM

LEHIGH'S "know-how" really cuts the corners and never lets trouble get to first base. And there is an all-star 'nine' in back of LEHIGH production that produces hit after hit for BLU-COLD customers. Here is a line-up that is hard to beat: (1) Sound Engineering. (2) Pattern Shops. (3) Modern Foundry. (4) Tool and Die Division. (5) Large Scale Machine Shops. (6) Daylight Assembly Plant. (7) Rigid Inspection. (8) ASRE Standards. (9) Scientific Material Control. Nine good reasons why the LEHIGH TEAM is at the TOP of the 1st Division in the league of quality condensing unit manufacturers.

1/4 to 5 H. P.

- PACKAGED AIR COOLED
1/4, 1/3, 1/2 H.P.
- HEAVY DUTY AIR COOLED
1/3, 1/2, 3/4, 1, 1½, 2, 3 H.P.
- STANDARD DUTY AIR COOLED
1/3, 1/2 H.P.
- HEAVY DUTY WATER COOLED
1/2, 3/4, 1, 1½, 2, 3, 5 H.P.
- COMBINATION AIR & WATER COOLED
1/2 through 3 H.P.
- HEAVY DUTY TRUCK UNITS
3/4 H.P. through 2 H.P.
For High, Medium, Low Temperature,
Freon 12 or Methyl Chloride. Units
for special applications in all capacities.
Write for condensed catalog.



Lehigh BLU-COLD
1/2 H.P. Air-Cooled
Package Type Unit

Lehigh
BLU-COLD
COMMERCIAL
REFRIGERATION

- ★ A Quality Product
- ★ A Complete Line
- ★ Quantity Production
- ★ Really Competitive Price

Lehigh Manufacturing Co. Plant:
LANCASTER, PA.

Export Department — 39 Broadway, New York 6, N. Y.

BRAND NEW! MEET Titchener's New Sample-Making Service for welded-wire, wire-and-strip-steel assemblies

Needed Help . . . But Fast!!!!

Recently the chief cabinet engineer of a well-known corporation brought us his troubles. He needed prompt delivery of hand-made, new design samples—important decisions hinged on their arrival. But his usual supplier was tied-up. He wondered if we could help him?

Could We? Pronto—we went to his aid by launching a new department! We formed a special Sample-Making Department by calling in men from all over our organization. An engineer from here—a die maker from there—a production man—and so on until we had a service of experienced craftsmen.

Happy Ending . . . and Beginning!

We pulled our distressed friend out of trouble so well that he's been using our newly formed service ever since. And it's a spanking good department—brim-full of cost-saving ideas—ready, able and rarin' to serve you.



What's YOUR Problem?

... Sample-making? Design? Production? Titchener is equipped with modern machinery to produce volume orders of welded-wire or wire-and-strip-steel assemblies. Let our design engineers study your blueprints with the object of cutting costs. Just send us a blueprint, or write or phone your requirements.

E. H. TITCHENER & CO.

93 Clinton St., Binghamton, N. Y.

AJAX CORPORATION OF AMERICA ANNOUNCES NEW, COMPACT, AUTOMATIC ICE CUBE MAKER

NAMED THE *Ajax Electric Iceman*

The Ajax Electric Iceman—an incomparable . . . new . . . and revolutionary product—is now on the market. Modern design and farseeing engineering have resulted in a perfected product which automatically produces crystal-clear ice at negligible cost, and which will immediately interest hundreds of thousands of commercial and institutional establishments where ice serves the important purpose of chilling beverages and food. The Electric Iceman is a significant development in the field of electric refrigeration.

Manufactured by Servel, Inc.

The Ajax Electric Iceman is manufactured by Servel, Inc., leading appliance and refrigeration manufacturer. The refrigeration unit is the famous Servel Supermetic Compressor (either water or air cooled). The exterior finish of the handsome streamlined cabinet is of gleaming white baked-on enamel with chrome trim—easy to clean and keep clean. All interior parts and surfaces are of materials developed and tested to assure hygienic cleanliness.

Nation-wide Distribution

The Ajax Electric Iceman is being exclusively distributed and sold through Ajax distributors in principal cities throughout the United States. Many desirable marketing areas are still open for distributors with live-wire sales organizations. All inquiries will be promptly handled. Please address Department EI, Ajax Corporation of America, Chicago 3, Ill.

Wide Market Seen Among Taverns, Restaurants, Hotels, Clubs, Fountains and Institutions

The Ajax Electric Iceman answers the need for an inexpensive, no-muss, no-fuss point-of-use ice supply. In small taverns, cocktail lounges, restaurants, clubs, soda fountains, and package stores a single, strategically located Electric Iceman will automatically provide a plentiful supply of clean, firm-frozen, crystal-clear ice cubes (an automatic ice-crusher is also available at slight additional cost).

For larger users of ice—including hotels, cafeterias, hospitals and schools—the Electric Iceman may be installed in batteries of two or three, or at multiple service points to improve service, save steps, increase efficiency.

The Electric Iceman permits the ice supply to be geared to the hour-by-hour requirements of any business, storing up for peak periods or slowing down for slack hours.

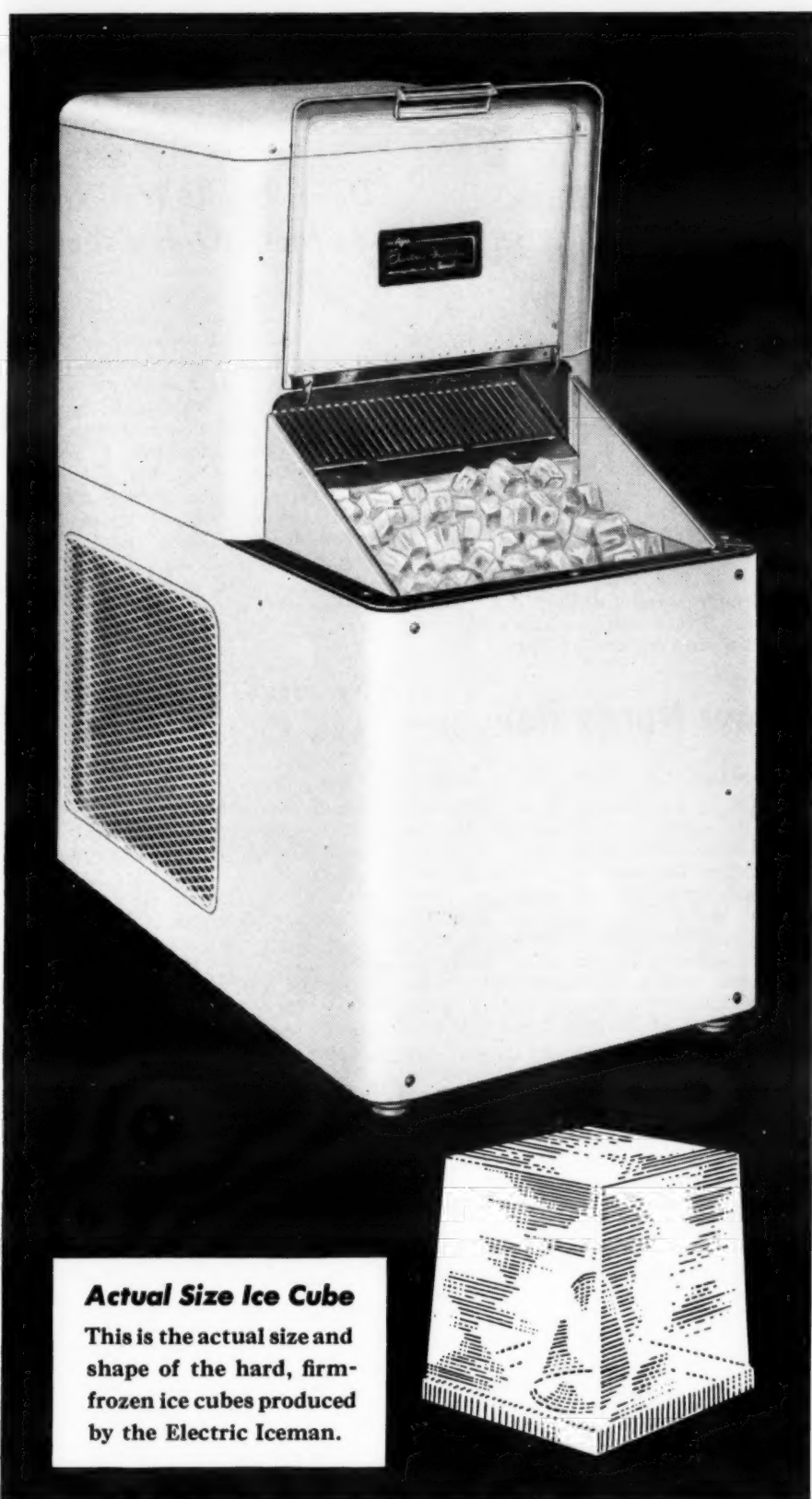
PRICED WELL WITHIN REACH OF EVEN SMALL BUSINESSES

Thanks to its low initial cost and almost negligible operating cost, the Electric Iceman will show a substantial profit for even the smaller ice-using business. An Electric Iceman "Installation Survey and Cost Analysis" chart—which can be filled out in a matter of minutes—will positively demonstrate the profits that can be made.

An Ajax Electric Iceman may be purchased for as little as \$89.50 down; with budget plans up to 24 months. Full cash price is only \$895.00* including installation,** one year's free service and one-year warranty.

*Available with Ajax Electric Ice Crusher at slight extra cost.

**Installation cost slightly higher when electric, water and drain outlets are more than 10 feet away from installation point.



Actual Size Ice Cube

This is the actual size and shape of the hard, firm-frozen ice cubes produced by the Electric Iceman.

HOW THE *Electric Iceman* WORKS

EFFICIENT

Automatically produces up to 7,500 clean, firm-frozen, crystal clear ice cubes every 24 hours—up to 360 pounds of ice!

FAST

Produces 156 ice cubes approximately every 30 minutes.

AUTOMATIC

Automatically produces ice cubes until the heavily insulated storage compartment—which holds approximately 1400 cubes or 60 pounds of ice—is filled. When the compartment is wholly or partially emptied, the Electric Iceman starts automatically and refills the compartment.

CLEAN

Of every five quarts of water, four are frozen into cubes—there is no recirculation of water. The water is in constant agitation in a sealed platen until frozen. When the freezing cycle is complete, out come the cubes—untouched by human hands—all clean, firm-frozen, sparkling clear. In certain areas where water has an unpleasant taste or odor, the Electric Iceman is available with a small, specially developed water conditioner which gives tasteless, odorless, sparkling clear ice. An "S" Model of the Electric Iceman is also available which automatically produces snow cubes for users of crushed white ice.

COMPACT

May be installed anywhere—needs minimum floor and wall space. Overall dimensions are only 41 x 34 $\frac{1}{2}$ x 20 $\frac{3}{4}$ inches. Low, 41-inch height permits easy fit under standard height bars. Right-height container—just lift the lid and there's your ice—ready for immediate use or transfer to storage cabinets by means of the specially designed, easily removable mesh basket.

A PROFIT MAKER

Wherever installed, the Electric Iceman will substantially reduce ice costs. The low initial cost will be amortized in a surprisingly short period of time . . . out of the money that is no longer spent for ice.

AJAX CORPORATION OF AMERICA

176 WEST ADAMS STREET
CHICAGO 3, ILLINOIS

THE *Ajax*

Electric Iceman

manufactured by *Servel, Inc.*

REG. U.S. PAT. OFF.

Vaughan 'Gift' Publicizes Home Freezer-- Cooler Hospitals--

(Concluded from Page 1, Column 5)
highly desirable items!

And syndicated columnist Robert Ruark, while declaring that he couldn't "steam up" over the gift of home freezers for persuasive purposes, admitted that "there was practically nothing, in 1946, that a hausfrau wouldn't do for a good refrigerator."

Disclosure of the gifts of home freezers came before a U. S. Senate committee investigating the activities of "5% brokers" who charged fees for using their influence in getting federal contracts.

Albert J. Gross, president of Tractor Specialties Co. in Milwaukee, who merchandised some freezers and other refrigeration equipment shortly after the end of the War, supplied freezers to Vaughan and other capital notables, and said that they were paid for by the Albert Verley Perfume Co. of Chicago.

HOW VAUGHAN GOT THEM

Vaughan said that the freezer gifts were made by "two old friends of mine—Harry Hoffman and David Bennett." Bennett was head of the Verley Co. and Hoffman is the Verley Co. advertising representative.

Vaughan declared that there was no impropriety in the gifts, and made the following statement:

"In 1945 I had a talk with two old friends of mine—Harry Hoffman and David Bennett. The subject of deep freeze units came up, and I said that I would like to have one for my house and that I would also like to send one to the little White House in Independence.

"Hoffman said that he was asso-

ciated with a concern that was beginning to manufacture such units, and that he thought he could get hold of some factory rejects. He asked me whether, if he found that he could obtain some of these units, I would want some for some of my associates.

"Later Hoffman informed me that he could obtain some units that did not have commercial value, as they were experimental models. At that time I informed him that I would like to have him send one to me and one to the White House in Washington for the lunchroom used by members of the staff.

"Also, I asked him to send one to the little White House, and to send other units to Fred Vinson, John Snyder, James K. Vardaman, and Matthew J. Connelly. I had previously told them that I was going to get some deepfreeze units and that I would like each of them to have one."

WHO MADE CABINETS

The committee is planning to question Gross and Robert Quirk of the Quirk Co., which made the cabinets for Gross, about whether or not the models were of "no commercial value." Quirk has already told reporters that "there may have been some defective steel in some of the units, but we didn't know it nor did we sell them to Gross as rejects." He said that his company has sold several hundred cabinets to Gross.

Gross, who marketed various types of refrigeration equipment and home freezers after the War, is practically non-active in the refrigeration field at the present time.

(Concluded from Page 1, Column 3)

"... The other day I went over to X hospital to watch Dr. X do an operation. The operating room was air conditioned. Dr. X got into trouble. The perspiration oozed out of him. Countless times he had to interrupt his work to have his face swabbed off and several times had to have his glasses removed.

"I noticed when the drapes were removed the patient was sopping wet. The reason for all this was that some wiseacre figured that there was such a thing as 'too much' air conditioning and specified in advance the temperature and humidity of the operating room."

Liquid Carbonic Sues Tire Co. on 'Frostairs'

CHICAGO—Liquid Carbonic Corp. has filed suit in U. S. District Court for \$139,442, plus interest and costs, against General Tire & Rubber Co., Inc., which amount is claimed to be due under a contract for the manufacture of "Frostair" combination refrigerators and home freezers.

The suit alleges that on Nov. 14, 1944, Liquid Carbonic and the General Tire & Rubber Co. entered into a written contract whereby Liquid agreed to make 25,000 household refrigerators with compartments designed to operate at low temperatures.

General Tire & Rubber Co. made several payments on the contract, but plaintiff alleges that the defendant still owes the amount named in the suit.

Calling All Distributors!



On the largest telephone hookup ever to go out of Cincinnati, W. A. Brees, Crosley general sales manager, spoke to 1,200 sales executives of Crosley distributorships in 87 cities, telling them about plans for a national sales convention Sept. 19 and 20 in Cincinnati, at which a number of new products will be announced.

June Set '49 Mark On Standard Washers

CHICAGO—The best month of the year in factory sales of standard-size household washers was scored in June when 272,000 units were sold, the American Home Laundry Manufacturers Association, formerly the American Washer & Ironer Manufacturers Association, reported recently.

This volume bettered the previous high for the year, made in April, by 7% and was ahead of May by 27.2%. It was 29.6% less than in June of last year, however.

Ironer sales, totaling 20,600 units, were 8.4% better than May but 37.1% under June of 1948.

Delco Recalls Workers As Motor Orders Mount

DAYTON—A steady increase during the past two months in orders from appliance producers for its fractional horsepower electric motors has resulted in the recall of about 400 employees within the last four weeks, it was revealed recently by Delco Products Div. of General Motors Corp.

With General Motors' Frigidaire Div. having rehired approximately 1,000 workers since the last of its layoffs, which started in March, around 1,400 G-M division employees have now returned to work at Dayton.

Sy Jacobs Will Buy for May Co., Other Stores

CHICAGO—On Oct. 1, Sy Jacobs & Associates will take over operation of the former May Co. buying offices in The Merchandise Mart. Jacobs has managed the offices for the May Co. since they opened six years ago.

The 20 accounts of this new resident buying office will include all the 15 May Co. department stores as well as five other stores which the May Co. offices in The Mart had been serving. The five stores are Meier & Frank, Portland, Ore.; the Ed Schuster & Co. stores, Milwaukee, and the following three units of the City Stores group—Lit Brothers, Philadelphia; Maison-Blanche Co., New Orleans; and B. Lowenstein & Bros., Memphis.

The May Co. stores include units under that name in Baltimore, Cleveland, Denver, and in the Wilshire, Crenshaw and main sections of Los Angeles, also the M. O'Neil Co., Akron; Famous Barr Co., St. Louis and Clayton; Kaufman department stores, Pittsburgh; Strouss-Hirschberg Co. stores in Youngstown, Warren, and New Castle; the Griswold Co., Warren, and the T. S. Martin Co., Sioux City.

Credit Research Group Set Up In New York

NEW YORK CITY—Credit Research Foundations, Inc., a recently formed affiliate of the National Association of Credit Men, has announced the publication of a booklet entitled "Credit Research."

The publication will publish special research studies relating to current and long-range credit-financial problems and factually-determined conclusions on modern successful credit management policies and procedures, it was said.

The association's address is 1 Park Ave., New York City.

New Norge Ranges--

(Concluded from Page 1, Column 2)
finish of the range. The appearance of the range is enhanced by the use of chrome bar hardware.

Other features of this range are chrome-trimmed tele-switches, "saftee" and selector switches; a newly-designed lamp and clock assembly; seven-speed surface units; deep well cooker with hi-lo cooker unit; "charcoal" broiler; warming drawer; glass fiber insulation and balanced oven heat.

Norge also includes a 38-in. deluxe model with the surface units clustered at the left. The oven is at the right. There is no oven window, but in other respects this range is similar to the divided-top model.

At a suggested retail selling price of \$259.95, Norge provides a divided-top model that is similar to the deluxe divided-top range except that there is no "saftee" nor selector switch, nor hi-lo cooker unit. The automatic controls are connected to the oven and the appliance outlet. Instead of individual signal lights, there is one signal light for the two left surface units, one for the two right units, and one for the oven. There is no warming drawer.

At a suggested retail selling price of \$229.95, Norge provides a 38-in. range with surface units clustered to the left and an electric clock for automatic control of the oven and appliance outlet. The range has an 18-in. incandescent lamp, three full-size service drawers, single signal lights for surface units and oven. This model contains all the other Norge features.

Model E-3, at a suggested retail selling price of \$179.95, is a non-automatic electric range. This model has no lamp assembly or warming drawer. One large service drawer is located under the switch panel at the left. Solid panels under the drawer and the oven add to the rigidity of the range. The model has a thermostatically controlled oven heat regulator and other standard Norge features.

The lowest-price model in the line is an apartment model with a 20-in. top. This model has four surface units with seven-speed tele-switch controls.

BOOST BUSINESS WITH NAMEPLATE DECALS

Place your own printed nameplate decal with your advertisement on everything you sell, service or manufacture. Our decals adhere permanently to home and commercial refrigerators, reach-ins, walk-ins, water and beverage coolers, display cases, fountains, farm and ice cream freezers, etc.

For free samples, catalog & prices write
JAYSOL ADVERTISING CO.
DEPT. A
505 FIFTH AVE., NEW YORK 17, N. Y.

REFRIGERATION

★
**ASK FOR
FREE COPY
ON YOUR
LETTERHEAD**

★

Let our new catalog be a star performer for you, too. List prices shown only with a separate net price schedule for your confidential use, making it possible for you to use our catalog in your own selling.

TEMPCO SUPPLY COMPANY
REFRIGERATION PARTS AND SUPPLIES
WHOLESALE
1111 West Jackson Blvd., Dept. A,
Chicago 7, Illinois
Phone CHesapeake 3-4700

AIR DRIER

Reduces Humidity

Genuine Oasis Quality
for only
\$146.75
List Price
F.O.B. Columbus
Including
**FIVE YEAR
WARRANTY**

Easy to Sell

OASIS AIR DRIER sells easily to stores, shops, warehouses, factories, printers, libraries, offices, hotels, clubs, schools and homes, and many other prospects.

OASIS AIR DRIER Saves Money

It saves losses resulting from damage caused by dampness, mold, mildew, or rust. Speeds drying of paint or plaster.

Automatic Operation

Plugs into any electrical outlet, requiring no installation or adjustment. Removes moisture from the air at the rate of 3 gallons a day (24 hours) in an average-size, closed area, with high temperature and high humidity.

Fits All Locations—Easily Moved

Finished in OASIS Metallic Tan Lacquer. Compact size fits under tables or counters. Mounted on gliders, it is easily moved.

Mechanically Proven—Quality Built

Equipped with 1/2 H.P. hermetically sealed condensing unit for 110 volts, 50-60 cycle, single phase current only. Dimensions: 12 1/2" wide, 20 1/8" high, 21 3/4" long. Shipping Weight: 100 lbs. Developed and warranted by the world's largest manufacturer of electric water coolers.

VALUABLE TERRITORY OPEN FOR DISTRIBUTORS AND DEALERS

ACT QUICKLY. Phone or Write for money-making proposition.

THE EBCO MANUFACTURING COMPANY, 401 West Town Street, Columbus 8, Ohio

DEALERS!

This Display Puts You Into the ROOM AIR CONDITIONING Business!



**MITCHELL ROOM AIR CONDITIONING
"MERCHANDISER"**

Here's the display that creates a complete Room Air Conditioning department in your store! Takes up only a few square feet; on wheels for easy moving; sturdy wood and Masonite construction. Sells for you 4 ways: 1. Keeps the unit in constant display on your floor. 2. Shows how the unit actually looks in a window. 3. Enables you to demonstrate the unit so your customer can actually feel the cold air delivery. 4. Tells the selling story to the unattended customer.

MITCHELL

1/2 TON AND 3/4 TON ROOM AIR CONDITIONERS

- ★ **GREATEST COOLING CAPACITY** of any 1/2 ton and 3/4 ton units on the market is established by tests made by United States Testing Company in accordance with applicable standards published by American Society of Refrigeration Engineers. Each unit carries MITCHELL'S 5-YEAR WARRANTY.
- ★ **LOWEST PRICE**--the most competitive units on the market today. You get every selling edge, price-wise and quality-wise.
- ★ **EASIEST TO SELL**--no special experience, no engineering organization necessary. You sell a package unit and a package installation. And what a package! No trade-in headaches--no heavy competition in this new business. The unit of sale is high and you make a full profit.
- ★ **MORE SELLING AIDS.** MITCHELL backs you, to the limit with every type of selling aid--mailing and counter folders, window streamers, newspaper mats and extensive national advertising--everything you could ask for to help you sell easier and more profitably.

Everyone who walks into your store is a prospect for a Room Air Conditioner. And the MITCHELL "Merchandiser" prominently displayed on your floor *sells them!* Just one look and they're interested. Just one simple demonstration and they're sold on MITCHELL Room Air Conditioning.

You'll sell the MITCHELL Room Air Conditioner like any major appliance package. Just two models handle all types of rooms. Each is a complete package--installs easily in any window--plugs in like a radio--no plumbing connections required.

Your market is unlimited. Every home, office and institution in your community is a prospect. We'll show you how to get into this profitable business easily, quickly, with minimum outlay. Send coupon today and learn how easy it is to sell MITCHELL Room Air Conditioners with the action-producing "Merchandiser" and Selling Plan. Act Now!

GET INTO THIS PROFITABLE BUSINESS!

**MAIL
COUPON
NOW**

MITCHELL MANUFACTURING COMPANY
Air Conditioning Division
2525 N. Clybourn Ave., Chicago 14, Illinois

Show me how I can get into the Room Air Conditioning business with the MITCHELL "Merchandiser" and Simplified Selling Plan. Send details to my personal attention.

NAME

TITLE

COMPANY

ADDRESS

CITY ZONE STATE

MITCHELL

AIR CONDITIONING DIVISION
MITCHELL
MANUFACTURING COMPANY
CHICAGO 14, ILLINOIS

Meters Move Merchandise for Dealers Who Know How To Set Up a Campaign

The Aug. 15 issue of AIR CONDITIONING & REFRIGERATION NEWS reported on the outstanding success with a coin meter plan for selling household refrigerators reported by many dealers since the end of the credit restrictions.

Since there are many dealers who have never had any experience with the meter plan, the NEWS presents the following discussion of the elements of sound meter plan merchandising, written by H. H. Rosenheim of International Register Co., the company which was the main promoter of coin meters for refrigerators in the 1930's, and which is again supplying meters to dealers today.

By H. H. Rosenheim, Assistant Sales Manager, International Register Co.

The days since the first of July have again proven that there is plenty of business available for those aggressive merchandisers who are willing to go out after it. Meter sales campaigns on household refrigerators have been producing phenomenal results in every section of the country. Sales of 15 a day for small dealers to 300 a day for larger dealers are not unusual.

The following interesting facts have come out of the meter campaigns run so far:

(1) Most successful campaigns are those where the store has promoted and sold the meter plan honestly. They have shown the quarter-a-day refrigerator in their advertisements (instead of a higher priced model). The advertised quarter-a-day model is always in the most prominent position on the floor, and the salesman takes each prospect to it first, before he starts to trade up.

No effort is made on the floor or in the credit office to switch the customer to other payment plans or obtain a down payment. Attempts to use the Meter Plan as bait, switching on the floor, and asking for a down payment have invariably boomeranged, killed the promotion, and created ill will for the merchant.

(2) Customers are trading up to the higher priced boxes. Many stores are reporting that their most popular model is the \$300 refrigerator.

(3) Chiseling and price cutting has been successfully combatted. Meter Plan stores are getting the full price plus their normal carrying charge.

(4) Over half of the purchasers previously owned ice boxes and were paying a quarter a day, or more, for ice.

(5) During most meter campaigns, approximately 75% of the sales were made on the Meter Plan and 25%

converted to the regular time payment plan.

(6) In addition to refrigerators, considerable success is being obtained in selling ranges, water heaters, home freezers, washing machines, radios, and television sets on the Meter Plan. Home freezers are having particularly good sales results, some stores reporting 5 to 15 sales following meter advertisements.

(7) Stores are finding that Meter Plan purchasers in general have a better credit rating than the customers they have been taking on the normal time payment plans.

(8) Time required to close a sale has been sharply reduced. During busy days, salesmen in a Chicago store were closing orders in 6 to 10 minutes.

The Meter Plan is simply an easy payment plan designed to stimulate the sale of household appliances. It enables stores to sell safely with no down payment and instead of collecting large lump sum monthly payments, it calls for only a quarter or two a day.

Use Regular Contract

Meter Plan stores use a regular conditional sales contract together with a supplementary agreement covering the use of the meter. The customer is obligated to make a stipulated payment every month and she is loaned the meter as a convenient "bank" to accumulate those monthly payments by depositing coins every day.

Advertising Must Be Specific

at General Furniture Company

NOW NO DOWN PAYMENT

PAY AS LITTLE AS **25¢** A DAY ON GENERAL'S NEW METER PLAN!

NEW 1949 **KELVINATOR**

Here's How The Meter Plan Works

1. We deliver your Kelvinator immediately, with no down payment.
2. For your convenience in making payments, we install the Meter Plan on your Kelvinator.
3. Just drop in little 25¢ coins (or more, if you like) into the meter.
4. Once a month, our representative calls. You can make up your payment, or we will collect it for you.
5. Then, the daily small change you save will actually pay for your Kelvinator. You pay for it little by little. It doesn't matter. Just follow a new Kelvinator on the Meter Plan today!

When payments have been completed, meter will be returned and you will be given a check for \$250.00. There is no extra charge for this plan.

Remember! NO DOWN PAYMENT! FAST!

Most successful advertisements in a meter campaign stress the features of "no down payment" and terms "as little as 25¢ a day." It's important to carefully explain how the meter plan works, and also to picture the specific model being sold on the meter basis.

The meter itself is a small, coin-operated, time switch. The refrigerator cord is plugged into the receptacle inside the meter and when the meter door is locked the refrigerator plug cannot be removed. The cord from the meter is then plugged into the wall outlet. The meter can be placed on top of the refrigerator, hung on the wall, placed on a shelf, or out of sight if the customer desires.

As long as the customer deposits quarters in the meter, the refrigerator will continue to operate in the normal fashion. If quarters are not deposited, the refrigerator will not operate.

The meter operates on quarters only. By the simple changing of a time interval gear, the meter can be set to operate for a varied length of time for one quarter: 24, 20, 18, 16, 15, 12, 9, 8, etc., hours. This results in the equivalent daily payments of: 25, 30, 33½, 37½, 40, 50, 66½, and 75 cents.

Any number of quarters, up to a limit of 23, can be deposited in advance. This permits paying up for several days ahead. Coins drop into a locked receptacle, from which the collector removes them once a month.

The meter has a tremendous appeal because it fits into the daily cash basis upon which low income families are accustomed to operating. These families get paid daily or weekly and are accustomed to paying cash for groceries, meat, amusement, etc. They can readily visualize how easy it is for them to deposit two quarters a day in the meter.

These same families have difficulty saving up \$15 for monthly payments. On the Meter Plan they know that at the end of the month they will get a receipt instead of a bill. To them it is just as easy as paying a quarter a day for ice and no more than the cost of a magazine or a bottle of beer.

It is the "loose change" way of buying appliances.

Twelve years of experience in selling on the Meter Plan prior to the war has proven it is an essentially sound way of selling appliances. Those companies who exercise reasonable credit control found that their delinquencies and repossessions were less on meter accounts than on regular time payment plans even when a down payment was obtained.

The reason for this is not hard to find. With a coin meter attached to her refrigerator the customer is faced with the alternative of depositing a quarter or two a day or doing without refrigeration. The quarter is almost always forthcoming.

Any appliance can be readily sold on the Meter Plan. In fact, any item in the store can be sold on the Meter Plan. When selling refrigerators or television sets on the Meter Plan the coin meter is installed on the refrigerator or the television set.

When any other appliance is sold on the Meter Plan the meter is always installed on the refrigerator. Even though the customer already owns the refrigerator, the meter is nevertheless attached to it and she pays through this meter for the range, washing machine, or any other appliance that she is purchasing.

The price of the meter is generally considered small in relation to the total sales volume produced. Few stores charge for use of the meter. More dealers state on their contract "A charge of \$7 will be made if the meter is not returned at completion of contract."

There are seven key elements to a successful Meter Campaign. Any dealer setting up such a campaign must carefully work out his plans with regard to these elements before starting.

The seven key elements are: finance, terms, credit, promotion, training of salesmen, collections, and delivery and installation.

(1) Finance—The average dealer in a town of under 100,000 population

(Concluded on next page)

A clear note for better refrigeration tubing

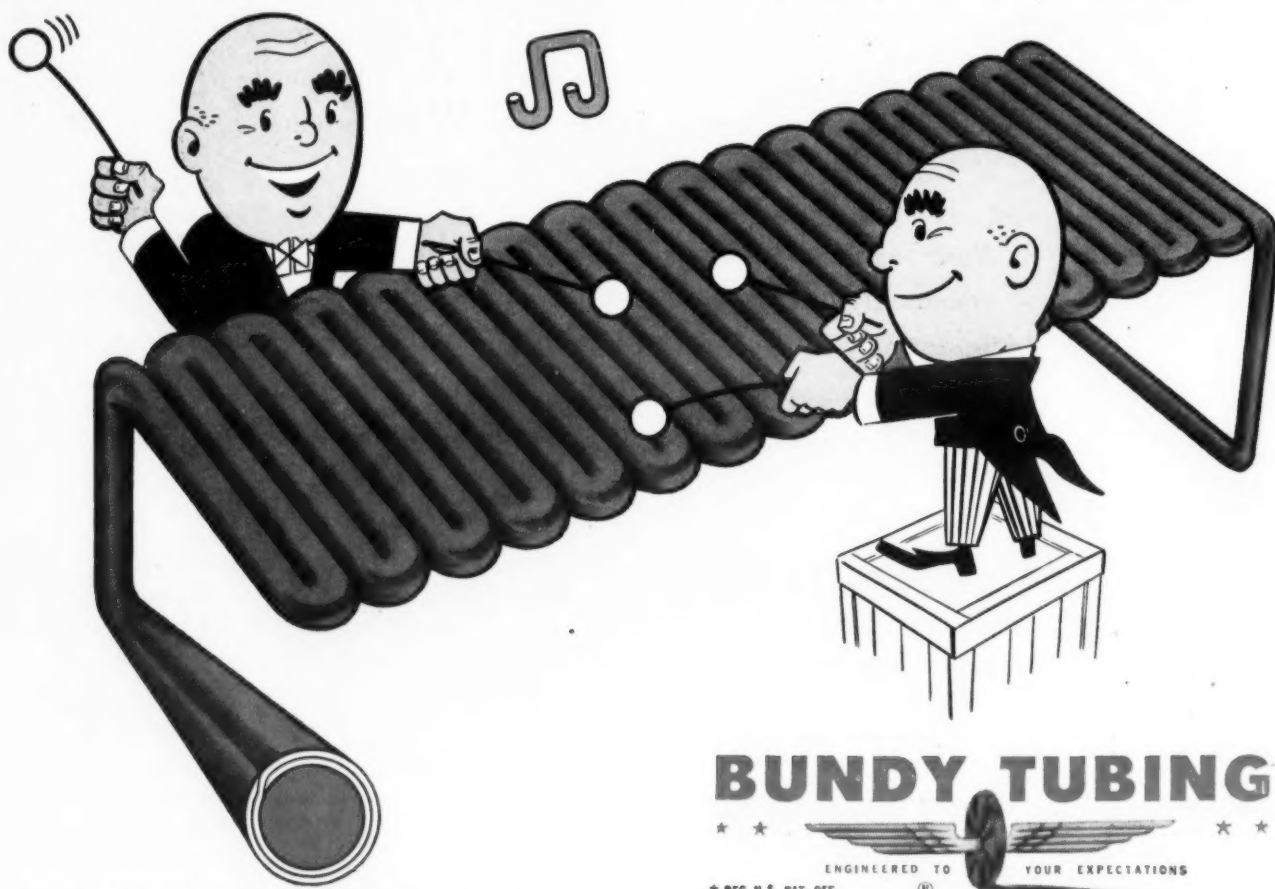
Every day, more and more refrigeration equipment manufacturers sing the praises of Bundyweld® Tubing.

Used for condenser and evaporator coils, compressor lines, and connecting tubes, Bundyweld gives them better refrigeration at lower cost.

Double-walled from a single strip, copper-bonded at all points of wall contact, Bundyweld is extra-strong yet thinner walled... hence faster cooling! Ductile, it resists buckling in short radius

bends. Easy to fabricate, Bundyweld is lightweight and easily handled... lowers production expense by shortening production time. You'll be surprised at its initial low cost, too.

Check this outstanding tubing for possible improvement in your refrigeration equipment. Contact your near-by Bundy distributor, among those listed below, and he'll give you the full story on famous Bundyweld. Or, write direct to: **Bundy Tubing Company, Detroit 14, Michigan.**



BUNDY TUBING

ENGINEERED TO YOUR EXPECTATIONS

REG. U.S. PAT. OFF.

WHY BUNDYWELD IS BETTER TUBING

1 Bundyweld Tubing, made by a patented process, is entirely different from any other tubing. It starts as a single strip of basic metal, coated with a bonding metal.

2 This strip is continuously rolled twice laterally into tubular form. Walls of uniform thickness and concentricity are assured by close-tolerance, cold-rolled strip.

3 Next, a heating process fuses bonding metal to basic metal. Cooled, the double walls have become a strong ductile tube, free from scale, held to close dimensions.

4 Bundyweld comes in standard sizes, up to 3/4" O.D., in steel (copper or tin coated), Monel or nickel. For tubing of other sizes or metals, call or write Bundy.

BUNDY TUBING DISTRIBUTORS AND REPRESENTATIVES

Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Binney St. • Chattanooga 2, Tenn.: Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. Chicago 32, Ill.: Lapham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Philadelphia 3, Penn.: Rutan & Co., 404 Architects Bldg. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 3628 E. Marginal Way • Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 881 Bay St.

BUNDYWELD NICKEL AND MONEL TUBING IS SOLD BY DISTRIBUTORS OF NICKEL AND NICKEL ALLOYS IN PRINCIPAL CITIES.

Be Sure Customer Understands Meter



A salesman explains the operation of the meter to prospective refrigerator purchasers. An important phase of meter selling programs is making certain that customers who plan to use the meter to make payments understand thoroughly the elements of the plan.

7 Important Factors Provide Key To Successful Meter Plan Sales

(Concluded from preceding page)

tion, with an aggressive campaign, must figure on selling 75 to 150 refrigerators a week. In cities of 100,000 to a million population, his sales may range from 150 to 250 per week. In cities with population over a million his sales may range from 300 to 1,000 per week.

Financing charges range from 6% to 7½% per year. Experienced meter users do not charge a higher interest rate on meter plan accounts than on other time payment accounts.

The dealer must be prepared to finance this volume of business or arrange with a bank or finance house to carry this paper. These arrangements should be well worked out in advance so that the dealer does not take on more paper than he can successfully carry.

Working Out Terms

(2) **Terms**—Terms must be worked out so that every refrigerator in his line is priced on the basis of . . . cents a day. Ordinarily the lowest priced refrigerator (\$189.95) is priced at 25 cents a day. Refrigerators around \$200 are 30 cents a day, those around \$250 are 40 cents a day, and those around \$275 to \$300 are 50 cents a day. As indicated above there are eight popular payments ranging from 25 cents to 75 cents per day.

Some stores restrict their daily payments to three groups: one quarter, two quarters, and three quarters a day. Everything under \$200 is priced at one quarter; \$200—\$300 at two quarters; and over \$300 at three quarters. Others prefer to use the range of eight different daily payments.

In some cases terms may have to be extended beyond 24 months to work out a satisfactory daily rate. It is worthwhile to point out that the trend will certainly be toward longer terms, probably 36 months before very long.

(3) **Credit**—Exercising proper credit control on Meter Plan accounts is very important. It will make or break the campaign. Customers purchasing on the Meter Plan should be given the same type of credit investigation as given those customers purchasing on any other type of payment plan.

Although the meter makes it easier for the customer to pay, there is nothing magic about the meter which will place money in a jobless man's pocket. If he has any income above bare subsistence, the meter will get it.

Pre-war experience has indicated that where careful control of credit is exercised delinquencies and repossessions were less on the Meter Plan than on other type of payment plans with equal credit control. The credit department must also be prepared to handle a large volume of credit investigations in a short period of time. Failure to process credit applications promptly may result in a high number of cancellations.

Dramatic Promotion Needed

(4) **Promotion**—Dramatic and attention compelling promotion is necessary to assure maximum success. The concern should open with a smashing full page advertisement and be followed in three days with at least 60 column inches. "NO DOWN PAYMENT" should be headlined in big bold letters across the top of the advertisement. This should be followed by "PAY AS LITTLE AS 25 CENTS A DAY." The "25 cents" should be in very large letters.

Right on the top of the advertisement should be a picture of the meter with a hand depositing a coin in it. Only one refrigerator should be shown in the advertisement. This should be the same refrigerator that the store is selling for no down payment and a quarter a day.

The advertisement should tell exactly how the Meter Plan works. This is important so that the customer can understand the plan in detail which will shorten the time required to close the sale on the floor. It is best not to show the total price of the refrigerator in the advertising.

A coupon prominently placed in the advertisement will produce many leads that can be used for follow-up. However, many stores find it best not to use a coupon for three or four weeks. The initial floor traffic is all their sales staff can handle. After the first month, the sales force will have more time to work outside leads.

Effective floor displays should be set up; 25 to 30 refrigerators should be placed in a prominent position on the floor. Colorful banners, streamers, and spot displays should be used. Street traffic should be drawn in by means of dramatic window displays featuring streamers, banners, etc.

There should be plenty of room to handle floor traffic. Provision should also be made for adequate table space for salesmen and customers to complete order details.

Do as thorough job as possible in pre-selling the customer. Allow the salesmen to devote their time to closing and writing up the orders. Pre-selling can be accomplished in several ways. The advertisement should tell exactly and simply how the Meter Plan works.

In the refrigeration department a large blow-up explaining how the Meter Plan works should be placed on the wall or in a convenient spot.

On the inside of each refrigerator door should be listed in bold, easily read letters the main features of that model.

On the outside of the door or on top of the refrigerator should be placed cards showing the price of that model in terms of cents per day. All of these activities will aid in reducing the time required by the salesman to close the order.

If the store has a mailing list of customers a small direct-mail piece can be used effectively. Otherwise, have reprints made of the newspaper advertisement and stuff them with each invoice mailed out.

Effective use can be made by spot announcements on the radio. Television is particularly effective in dramatizing to prospects how easy it is to deposit a quarter every day in the meter.

(5) **Training the Salesman**—The salesman should be trained in the proper way to sell on the Meter Plan. The customer may be skeptical about the validity of the offer of no down payment and a quarter a day. He should reassure her by taking her at once to the quarter a day refrigerator as advertised. Once her confidence has been obtained there is no

difficulty in trading her up to the higher-priced refrigerators.

The salesman must learn how to close sales rapidly. The meter is excellent as a door opener.

(6) **Collections**—The dealer must make adequate provision for making monthly collections on the coin meters. Some stores use their salesmen to collect, others have a company collector, and still others use their truck delivery man to collect.

In any event, the collector should be trained as a salesman. The very nature of the Meter Plan collection is one that will build goodwill for the company. In collecting other accounts the collector has to ask for payment.

In calling on Meter Plan accounts the collector gives the customer a receipt instead of a bill. The collector, therefore, has an excellent opportunity to obtain leads from her as to other prospects for refrigerators as well as selling her a new washer, ironer, or other appliance on the Meter Plan.

Should there be more money in the coin meter than the account calls for, the collector can apply it against the account to pay it off more rapidly. If the meter is short the required amount, the collector should have the

customer make up the difference.

Before the collector leaves he should sell back a dollar or two worth of quarters to her so that she will have some quarters on hand to start her off on the next month.

(7) **Delivery and Installation**—The delivery service should be prepared for handling a large number of installations in a short period of time.

There should be adequate training of delivery personnel in how to install the meter. Emphasize that the refrigerator plug must be inserted all the way in the receptacle in the meter and the cord held firm by the clamp in the bottom of the meter case.

Before locking the meter door, he must make sure that both the refrigerator and the meter operate when the meter switch is closed.

Finally, the delivery man should again show the customer how to deposit quarters in the meter, pushing plunger all the way down after each quarter is inserted. The customer should be advised to deposit enough quarters to keep the arrow on the meter dial out of the red warning area. In this way her refrigerator will never shut off for lack of quarters.

This is one of a series of advertisements outlining the advantages of "Freon" refrigerants

WHY "FREON" REFRIGERANTS MEET WITH NATION-WIDE APPROVAL

OUTSTANDING CHARACTERISTICS OF "FREON" REFRIGERANTS

- NONTOXIC
- NONFLAMMABLE
- NONEXPLOSIVE
- NONCORROSIVE
- ANHYDROUS
- PURITY
- QUALITY
- ACID FREE
- NARROW BOILING-POINT RANGE
- AVAILABILITY

The narrow-boiling point range of "Freon" refrigerants (confined within limits of 1° C.) is another reason why engineers and manufacturers recommend equipment designed to use these refrigerants—for both large and small installations. High- and low-boiling impurities in a refrigerant can damage refrigerating equipment, so the narrow-boiling point range of "Freon" refrigerants is vital to the economical, efficient and continuous performance of modern air conditioning and refrigeration systems. Freedom from acids is another quality that enables "Freon" refrigerants to safeguard equipment. In addition, "Freon" refrigerants are safe... nontoxic, nonflammable, nonexplosive, noncorrosive, odorless and nonirritating. Should a serious breakdown or leak occur, "Freon" will not injure people or pets, or damage foods, fabrics or finishes. These refrigerants comply with the safety rules of all building codes, and they are classified among safe refrigerants listed in Group 1 of the A. S. A. B-9 code. Furthermore, "Freon" refrigerants are as pure as modern scientific methods of manufacture can make them. Periodic tests and inspections are made throughout the manufacturing process to assure this purity and quality. For example, in addition to the extremely narrow-boiling point range, there are not more than ten parts of moisture in a million parts of "Freon-12," the most widely used refrigerant. This dryness prevents freezing in capillary tubes and valves. It eliminates both the possibility of corrosion from water and the sludging of oil in compressors, evaporators and condensers. Today there is plenty of "Freon" to meet every commercial, industrial and household requirement. There are "Freon" refrigerants especially suitable for every air conditioning and refrigeration purpose. Throughout the industry—engineers unhesitatingly recommend equipment designed to utilize "Freon" safe refrigerants.

Kinetic Chemicals, Inc.
Tenth and Market Sts., Wilmington 98, Del.



FREON *SAFE* REFRIGERANTS

"Freon" is Kinetic's registered trade mark for its fluorinated hydrocarbon refrigerants

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

increasing unemployment, although strong companies are well buttressed by profit margins.

"Wage increases should now be based on past or future increases in productivity to prevent undue rises in costs; company earning power should be considered.

"Action that would start price inflation again must be avoided by government, management, and unions."

It is mentioned that the A.F.L. can provide local unions with data on their employer's financial position. Locals should try to "get the facts on his financial condition and outlook from him if possible," then write to headquarters for additional information if more is needed. The Big Idea: unions should treat gently the employer that may be having troubles, or is likely to have them.

"Perhaps your employer's prospects are excellent," the article continues, "but if his profit margin is being squeezed by price declines your future will be more secure if you help him improve his competitive position. A wage increase may depend on a plan for union cooperation to prevent waste, save expense, cut costs, and improve production."

That's talking sense. Three cheers for the A. F. of L.!

International Obligations

We Americans are pouring out billions of our tax-paid dollars these days to European Socialist governments. Are we nuts? Could be. The recipients of our charity don't always love us, nor do they try to help themselves.

Illustrative anecdotes:

In the British zone of occupied Germany an English bureaucrat bought a fancy miniature German camera. Wishing to smuggle it back home without paying a prohibitive customs charge, he laboriously separated the camera into its many component parts and mailed them, one-by-one, to his wife in London.

Some weeks later this German Occupation bureaucrat received a parcel from his wife, together with the following note:

"Dearest: With the help of our optician, I have fitted your bits and pieces into a completed camera. It's your birthday present. Hope you enjoy it."

Czechoslovakia's Boss Klement Gottwald (according to a story which has seeped under the Iron Curtain) awoke one morning to find his beloved meerschaum pipe missing. After a prolonged but futile search he called Communist Party headquarters and growled that it had been stolen.

Three hours later his wife found the missing meerschaum in a pocket of his bathrobe. Gottwald phoned Headquarters to call off the search.

"But you must be mistaken, Sir," cried the Communist chief of police. "We've already arrested six suspects, all of whom have confessed!"

A titled Englishman delighted his American friends the other day when he penned this note to one of them:

"I am now fortunate enough to have the one luxury which is left to us at no cost to ourselves. There is no tax on it and we do not need to line up for hours waiting our turn. Nor do we need to obtain governmental permission. I refer, of course, to the common cold."

In that wonderful book, *Treasury of Jewish Folklore*, a story is told about five students who were assigned to write an essay on The Elephant. Each student was of a different nationality, and reacted accordingly.

"The German, for instance, concentrated his research upon 'An Introduction to the Bibliography of the Study of the Elephant'; the French student expatiated upon 'A Study of the Love Life of the Elephant'; the Englishman chose for his theorem 'Elephant Hunting'; and the American titled his 'Breeding Bigger and Better Elephants'; while the Jewish boy wrote on 'The Elephant and the Jewish Problem.'"

More of Them Should See Us

"A Soviet purchasing agent told me this story:

"One day I came to see a big American industrialist. I came on time and was dressed very properly, but the American was in his shirt sleeves, chewed gum, and kept his feet on the desk. I saw in it an obvious and calculated insult to a representative of the Soviet Union. I got so angry I, too, defiantly put my feet on the desk, but he paid no attention to it and went on in his

usual friendly and business-like way. At that moment I understood something about America I had never understood before."—Robert Magidoff, in his book, *In Anger and Pity*.

The 'Ah's' Have It

"By way of an American visitor to England comes the report that overworked British doctors can spare only four minutes for the average office patient under socialized medicine. Thus for the first time in medical history it becomes necessary for the patient to open his mouth and say 'ah' at the same time he's trying to tell the doctor what ails him."—*Kansas City Star*.

Historical Footnote

In a British raid on New Haven, Conn. 170 years ago, Dr. Naphthali Dagget, president of Yale, was captured with a fowling piece in his hand. Prodded by enemy bayonets, he replied to the question of whether he would fight again:

"I rather believe I will, if I have an opportunity."

Forced to pray for King George III, he complied indirectly and patriotically:

"Oh Lord, bless Thy servant, King George, and grant him wisdom, for Thou knowest, oh Lord, he needs it."

Could Happen to Anybody

A brilliant young Brazilian chap and his father visited the University of Illinois recently. They liked what they saw, and the son enrolled for the fall term.

The elder gentleman sought to express his appreciation for the sanely intellectual atmosphere of that educational institution of Higher Learning. His English, however, was something short of perfection, and he fumbled for the proper words.

As he strove to express himself, his face suddenly brightened.

"I would like to tell you," he bumbled, bowing politely to the Dean, "that I think you have here a fine mental institution."

Essay on Exhibitions

Every once-in-awhile a harried manufacturer poses the question:

"Are Industry Exhibitions worthwhile?"

Often—for a particular corporation—that question is difficult to answer. Viewed on a grand scale, from a lofty perch, rebuttals come easy-like.

Joint exhibitions of competitive products would be inconceivable in a totalitarian state. Why have competition in the making and selling of home furnishing, of refrigerators, washers, toasters, radios, and television sets when a committee, a bureau, or a board could decide which of these products is most suitable for the purchaser's purposes and has the greatest esthetic appeal?

The committee, the bureau, or the board would establish a rating system and presumably, would prevent the consumer from making a mistake. The bureau, not the consumer, would know best.

We insist that adults can think for themselves. They must have the right to be wrong. There is a line beyond which the community cannot step. The individual must be permitted to exercise choice. Otherwise, he will lapse into the status of a pawn in the hands of an all-powerful state.

It is no accident that so-called "utopias" are never democracies. Always there is an elite, a group set above the ordinary man and woman, which acts as a central intelligence agency. It is they who will decide what is best, what products should be produced, expanded, curtailed, introduced, or suppressed, in addition to determining the ethics and religion, always in the best interests of their wards. The question to which no satisfactory answer is ever given is "Who selects the elite, or, when society plays the hangman, who is the hangman's hangman?"

New products and the constant improvement of old products are symbols of the American scene.

A young lady from Britain could not quite get used to the fact that refrigerators are almost in universal use by American families. She cried: "You Americans are always thinking of ways to make yesterday's product seem centuries old."

The fact remains that more refrigerators are used in this country than in the rest of the world combined.

Recently, our United States government published a most interesting pamphlet. It appears under the im-

print of the Bureau of Labor Statistics of the United States Department of Labor. This 142-page pamphlet is called "The Gift of Freedom." The subtitle is "A Study of the Economic and Social Status of Wage Earners in the United States." Much space is given graphically in this pamphlet to the food, clothing, appliances, and home furnishings in the homes of average American workers—and what they can buy in terms of an hour's work.

Evidently this pamphlet will be translated and distributed broadly. A chart shows the rise in real wages and reduction in hours of factory workers 1909-1947, and below the chart appears this sentence: "The average factory worker in 1947 could buy twice as much as in 1909 and he had 11 hours or one fifth more leisure each week." Reference is made in one place to the fact that America has the "largest and most efficient industrial plant in the world." Under "high levels of productivity," one significant sentence may be found: "Thus, it may be said that the most important factor in the expansion of production has been the increase in output per man hour which has accompanied the improvement and expansion."

Today, under a popular delusion that business profits and individual incomes must be siphoned off, the quest for security is accentuated. The most essential difference between our generation, that is, those who remember the world before 1914 and those who followed, is the note of confidence and the absence of despair in the earlier period.

The reasons for the search for security are varied. The need is to counteract the tendency. Instead, all of the forces of government and labor seem to be lined up to narrow the rewards of risk-taking. The end result may be more security, perhaps, but at a grave cost in economic and social improvement. We are trying to square the circle, or, to change the figure of speech, to have a perfect defensive team, but without the batters and speedy base runners who can score runs.

The tax structure's effects are vividly mirrored in the capital markets.

It is quite clear that the capital markets are not functioning as well today as the maintenance of a dynamic economy demands. Measured against 1926, a year which economists regard as a time of balance in the general economy, activity in each of the past two years has been less than one fifth of that of 1926. Dealings in stocks, which reflects not only volume of trading, but share prices, have since 1931 failed to equal the 40% of national income which they represented in the reasonably normal year 1926. Current high yields on common stocks are another indication of apathy in the capital markets. Examination of data over a 50-year period shows that rarely has the ratio been as low as at present. There has also been a striking divergence between stock and bond yields during the past decade. This spread has been widening, with irregular interruptions, since the great onslaught on ownership in 1936.

We must be alerted to the danger of tax policies that discharge risk-taking, which is so essential to enterprise, and which causes both new savings and existing pools of funds to take shelter in "safe" investments.

Unfortunately, a drying up of the supply of venture capital is not generally accompanied by spectacular danger signals of the sort that arouse people to action. The resulting deterioration in national productivity and living standards is not immediate or dramatic, but comes slowly and almost imperceptibly. There is no specific way to compare the performance of the economy with what it might have been if investment had not been impeded.

We hold firmly to the position that the surest road to economic progress is through the time-tested American system of individual enterprise and that our system is more compatible with freedom of individual action and democracy than any other. We are equally convinced that we must give that system a fair chance to survive and to prosper by removing the handicaps which certain features of our tax laws place upon it and which threaten to destroy the sources of its vitality.

We cannot cater to large-scale social and welfare demands and at the same time be militarily prepared and offer needed help to Europe in a world of uneasy peace. We can meet pressing social demands despite our large-scale obligations only if the country is prosperous.

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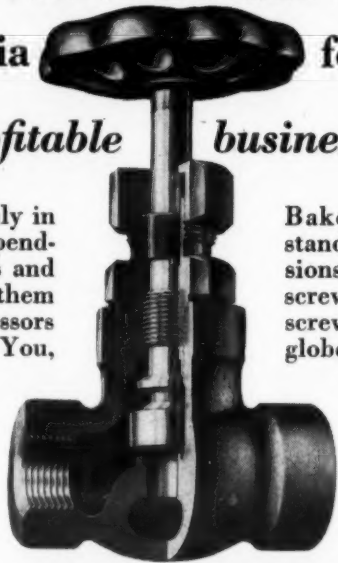
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Sidney Whitt Becomes Consulting Engineer For Cordley & Hayes

NEW YORK CITY—Appointment of Sidney A. Whitt as consulting engineer for Cordley & Hayes, manufacturer of Cordley ice and electric water coolers, was announced by C. M. Cordley, president.

During the past four years, Whitt has been successively chief engineer, director of engineering, and vice president, and a member of the board of directors, but he will relinquish this fall his full-time duties to accept an appointment as professor and head of the department of Industrial Engineering at Montana State College, a unit of the University of Montana. He will continue as a member of the board of directors of Cordley & Hayes.

Before joining Cordley & Hayes in 1945, Whitt served in engineering and technical-executive capacities with York Corp., Nash-Kelvinator Corp., Fedders Mfg. Co., and Baker Ice Machine Co.

Whitt is an honors graduate of the University of Alabama, and also held a 1933-34 Tau Beta Pi post-graduate fellowship at the Massachusetts Institute of Technology, from which he received the degree of Master of Science in mechanical engineering in 1937.

He has also pursued advanced engineering and administrative studies with the U. S. Army Corps of Engineers, at Cornell University ESMWT, and the Graduate Division of New York University.

His professional affiliations are American Society of Mechanical Engineers, American Society of Refrigerating Engineers, American Society of Heating and Ventilating Engineers, Society of American Military Engineers, Reserve Officers Association, Engineering Society of Detroit, American Society for Engineering Education, and American Society of Sanitary Engineering.

Southwest Kansas Store Opens First Self-Serve Meat Dept.

GARDEN CITY, Kan.—The first self-service meat department in this section of the state was formally opened during July by Ideal Food Stores' supermarket here.

Equipped with 60 lineal feet of open self-service Hussmann display refrigerators, the meat department has a crew of white uniformed packaging girls who work with three butchers behind the row of cases. One case is devoted to smoked and luncheon meats, another to delicatessen products and the rest to fresh meat cuts.

The cutting room is refrigerated, and is served by a walk-in cooler which can accommodate 25 sides of beef.

Oberc Takes on Commercial Line of Cooking Equipment

DETROIT—J. M. Oberc, Inc., pioneer refrigeration parts and supply jobber, has been appointed distributor for the Hotpoint line of commercial electric cooking and baking equipment for the southern peninsula with the exception of counties in the Chicago trading area.

According to J. M. Oberc, president, distribution of the Hotpoint commercial line will be handled by a new division of the company, established for the purpose, and will be entirely separate from the company's regular business of wholesaling refrigeration, heating, and air conditioning parts and supplies.

Monongahela Furniture Opens

MONONGAHELA, Pa.—The Monongahela Furniture Co. recently opened up here as a dealer for the Leonard line of major appliances.

Self-Serve Sidelight

Market Keeps Mayonnaise, Salad Oils on Top of Produce Case To Snag Extra Sales

ST. LOUIS—A custom-built, 10-ft. self-service refrigerated produce case, which stores 24 cu. ft. of produce in cabinets below, has produced many advantages for the Lehmkuhl Market.

The produce refrigerator, installed on the right side of the store, has four cabinets below, which provide ample space for a full day's produce, refrigerated at 35°. In the upper, self-serve section, almost as much produce can be shown, refrigerated to below 45° F.

Produce as received, is now stocked in the reach-in compartments, and kept refrigerated overnight for transfer to the self-service section at the top, the following morning when new vegetables go into the lower section.

Spoilage has been cut to a very small percentage, according to G. L. Lehmkuhl, head of the store, while along the top of the case, at an

eye-level shelf, is shown mayonnaise, salad dressings, vegetable oils, etc., which make it easy for the customer buying vegetables for salads to pick up dressings at the same time.

Installation of the case, which calls immediate attention to "refrigerated produce", has increased sales by at least 30%, it was pointed out by the management, while losses from spoilage have been cut in half.

Refrigeration in the lower section is provided by two direct expansion coils, while a circulating blower keeps cooled air moving over the produce displayed in a row of 12 sections in the self-service area.

Canadian Locker Incorporated

RUTLAND, B. C.—Rutland Lockers, Ltd., was recently incorporated with authorized capitalization of \$50,000.

Zatko Begins Tour of Fogel Distributors In Central, South America

PHILADELPHIA—Maurice Zatko, export sales manager for Fogel Refrigerator Co. of Philadelphia, has just commenced a 4-6-week trip to cover various sections of Central and South America.

He will visit key distributors in various countries and inspect some recent Fogel installations. In Guatemala, for instance, he plans to visit the Presidential Palace, where a Fogel 57-cu. ft. reach-in refrigerator was installed several months ago in order to aid food handling in the employee's dining room.

Another purpose of Zatko's trip is to conduct field sales meetings during which the distributors and his dealer organization will be present. He also plans to take advantage of his trip to conduct a personal survey of the commercial refrigeration requirements in these areas, and analyze new applications as well as styling trends.

N. Y. Fair Builds Big Cooler To Hold Milk, Cream Exhibits

GOVERNEUR, N. Y.—A new cooler for milk and cream samples exhibited at the Gouverneur Fair is under construction underneath the main grandstand.

The cooler, constructed along lines similar to the one used for cheese exhibits, will be about 20 ft. wide and 10 ft. deep with a glass exterior. Use of the cooler will make it unnecessary to take milk and cream samples to the Borden plant where they were kept in past years during the fair.

White Succeeds Glennie as GECC Buffalo District Mgr.

BUFFALO—Donald B. White has been appointed district manager of the General Electric Supply Corp., to fill the vacancy created by the death of Robert D. Glennie on July 27. With the company since 1931, White has been assistant district manager and district manager of appliance sales.

Why not Profit from Experiences of others?



"Favorable experience has sold us on the value of using Frigidaire Parts—we have almost no call backs," says William Goeckel, Goeckel & Van Service Co., 301 Norfolk Ave., Buffalo, N. Y.

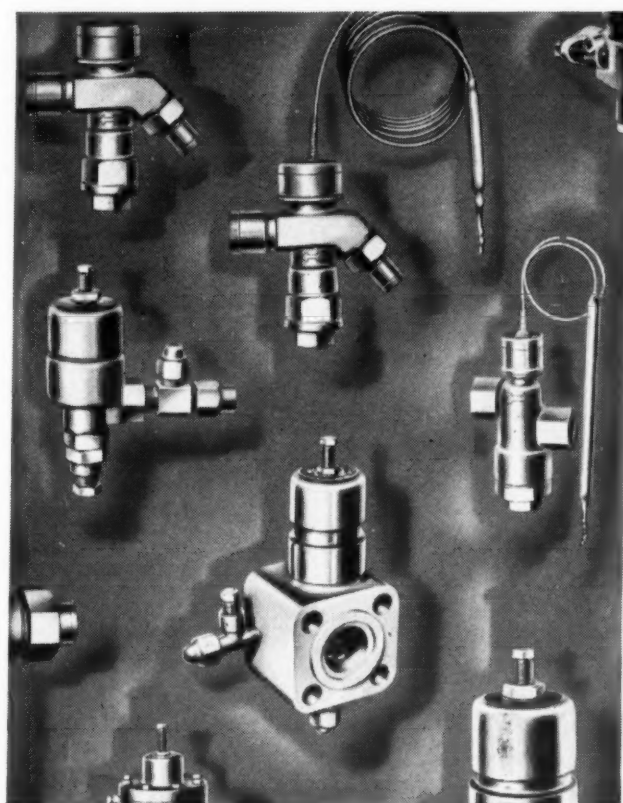


"We save a lot of time on overhauls by using genuine Frigidaire Parts, because they're made to fit perfectly," says L. P. Fowler, Arctic Refrigeration Co., N. 1905 Washington St., Spokane, Wash.



"Better service results from installing genuine Frigidaire Service Parts—they're really precision-built," says Boyd Neuhart, Neuhart Refrigeration Service, 1702 N. 11th St., Fort Smith, Ark.

Frigidaire Service Parts mean Good Business For You!



Frigidaire Refrigerant Control Valves cut job time—build good will—handle any control problem.

You'll find it pays three ways to use Frigidaire Precision-Built Valves for refrigerant control. They build customer satisfaction, because they're expertly engineered for dependable, accurate control. They save you time and money, because they're so quickly and easily installed. And, best of all, they handle any control problem, because there's a complete line of Frigidaire Valves to meet all your needs.

Frigidaire Thermostatic Expansion Valves include the famous Modalex series—17 models, handling from 3,000 to 48,000 Btu/hr. For larger installations, Frigidaire High-Capacity Thermostatic Expansion Valves are available in three models, ranging from 48,000 to 300,000 Btu/hr.

Frigidaire Automatic Expansion Valves are ideal for non-defrosting cooling units, ice cream cabinets, other low temperature applications—cover a range of 3,000 to 14,000 Btu/hr.

Frigidaire Cooling Unit Regulating Valves for accurate, efficient vapor control, include Evaporator Regulating Valves for forced air cooling units, Thermo Modulating Valves for thermostatic cooling control, Snap Action Valves for automatic defrosting, and Liquid Temperature Valves for liquid coolers.

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WANTED—DISTRICT SALES MANAGERS

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Box 3264, Air Conditioning & Refrigeration News



Jeannette Neisuler closes the lid on her well stocked freezer, which holds all the food her family will need during her week's vacation.

This is how I took a vacation

AS TOLD TO ELIZABETH SWEENEY HERBERT
Editor of Household Equipment, McCall's Magazine

A home freezer, a helpful family and a dollar a day gave Jeannette Neisuler the best vacation of her life

(Reprinted by permission of McCall's Magazine)

Last summer Jeannette Neisuler of Schenectady, N. Y., bought herself seven blissful days of rest in her own home. There was no marketing, cooking, baking, washing, ironing, dishwashing, or cleaning; for a whole week she enjoyed a housewife's para-

dise. Her vacation cost her \$7.

"I'm going to do the same thing again this summer," she says, "and I'm sure any woman who has good home equipment and a generous family can have a vacation exactly like this for the same price.

A fine piece of sales promotion for the home freezer industry is the article "This Is How I Took a Vacation" which appeared in the July issue of McCall's magazine. It is the story of a housewife who decided that she couldn't leave her home for a vacation—but who wanted desperately to get away from all her routine duties for a week.

Her home freezer played a major part in enabling her to do just that. Particularly interesting are the menus for the week, which enabled the housewife to get away from all meal preparation for the week. And significant, too, is the conclusion of the article in which she says—

"And best of all whenever I feel overworked or irritable I always know that the ideal vacation I once thought impossible is now simply a matter of my own making."

"Homemaking is nice work," Jeannette says. "After 12 years I wouldn't change it for any other job. But there's a side to running a house that gets every woman down. It's not the work itself, it's the endless repetition of monotonous duties."

Last July when Jeannette first decided she should get away from these duties for a while she sat down and wrote out two lists: the kind of vacation she really wanted and what she was willing to pay for it. The prospects were discouraging. She didn't want to leave her children—11, eight, and four—in anyone else's care. And yet if she took them with her there would never be time for the little luxuries she considered part of a real vacation. "I was looking

for all the comforts of home, but where could I find them at a price my budget would permit?"

A few days later when she was putting some food into her home freezer she had an inspiration. Why not take her vacation at home? She could store enough meals in the freezer to last a week. Dishwashing could be minimized with paper plates. The more she thought of it, the more wonderful the idea seemed.

That very day the Neisulers had a family council. The children and her husband, Efrem, agreed that Mother should have a "home vacation" and they began to make plans and lists.

"The week before my vacation," Jeannette recalls, "I went through my usual Mulberry Bush schedule of wash on Monday, iron on Tuesday. But on Wednesday the children took me shopping. We had agreed there would be special toys to keep them busy and quiet from one to four—my private hours—the following week.

"With great excitement each child picked out his own vacation project. For Judy tempera paints, for four-year-old Suzie a stencil book, for Ross a model train. We also bought a pound of clay, some pads for making scrapbooks, and two games. Cost: \$5.20. Adding 100 paper plates and 100 paper cups brought the bill up to \$7—my total vacation expenses!"

On Thursday Jeannette did her vacation cooking and baking, streamlining the menus to make them nourishing and attractive but simple to prepare and serve. "By this time," she says, "the children were so excited they could hardly wait for the week to end. 'When I wake up in the morning,' Ross told me, 'I can say, the day after the day after tomorrow is Mommy's vacation.'"

When she did the regular cleaning on Friday, Jeannette put away small breakables. On Saturday she went on a final shopping expedition which included "eating surprises" for the children's play hours: cracker jacks, marshmallows, lolly pops, fudgicles, and lemonade from the freezer—one for each afternoon. She also washed and ironed. (To keep the laundry situation in hand the children wore jeans and jerseys during most of the vacation and the week preceding it.) Before bedtime Saturday the family tacked up the schedules they had worked out for the week. It was agreed that after each had cleaned his own room household duties would be assigned as follows:

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Daddy	1	5	2	4	5	2	1
Judy	2	3	5	1	4	3	2
Ross	4	1	3	2	3	5	4
Suzie	3	4	1	3	1	1	3
Mother	5	2	4	5	2	4	5

1. Set table, clear and wipe table, take out garbage.
2. Prepare and serve food, put away leftover food, wash cutlery and pot.
3. Slick up living room (dust floor and furniture; put things where they belong).
4. Slick up bathroom.
5. Sweep kitchen floor, vacuum living room rug, empty wastebaskets.

On Sunday morning Jeannette slept long and comfortably. "The children were quiet as mice. At 10:00 Ross brought me my breakfast and told me the rest of the family had eaten, the dishes were done, and the house was in order. From the expressions on everyone's face when I went downstairs I realized that my vacation was just as much of a lark for the family as it was for me."

Meals went off smoothly according to the menus Jeannette had tacked up. Efrem took his previously prepared lunch out of the freezer each morning, and all the cooked food came from the same source. Each meal had been planned so that only one pot would be needed.

A lunch prepared by Ross, for example, included canned soup, open-face cheese sandwiches, frozen strawberries from the freezer, cookies, and chocolate milk. (One pot required.)

A dinner prepared by Judy on the outdoor grill included grapefruit halves, kabobs of steak, bacon and onions, potato chips, cole slaw and sliced tomatoes, a cake out of the freezer, and bottled soda. (No pot to wash.)

Every afternoon at one o'clock Jeannette retired to her bedroom and hung a sign on the door: "Danger! Proceed at your own risk! Woman at work, resting!"

Jeannette Neisuler's vacation menus

SUNDAY

DINNER: *Roast Chicken
Baked Potatoes *Beet Salad
*Ice Box Pie

SUPPER: Cottage Cheese
and Vegetable Salad
*Cookies Fruit

MONDAY

LUNCH: *Soup
Cheese Sandwiches
*Strawberries *Cookies
DINNER: Cold Chicken
Potato Salad *Broccoli
*Chocolate Cake

TUESDAY

LUNCH: Make-Your-Own Sandwiches
*Coconut Cookies Fruit
DINNER: *Shrimp and Noodle Casserole
Stuffed Celery *White Cake
*Ice Cream *Frozen Pineapple

WEDNESDAY

LUNCH: Scrambled Eggs
*Asparagus
Fruit
DINNER: *Split Pea Soup with
Meat and Potatoes Added
*Upside Down Cake

THURSDAY

LUNCH: Make-Your-Own Sandwiches
*Tapioca Pudding *Cookies
OUTDOOR DINNER: Grapefruit
*Kabobs Potato Chips
Cole Slaw Tomatoes
*Cookies

FRIDAY

LUNCH: Deviled Eggs
Fresh Vegetables
*Cookies
DINNER: Tomato Juice
*Tuna Casserole Baked Potato
*Asparagus
*Cherry Pie

SATURDAY

LUNCH: Lettuce and tomato Sandwiches
*Corn Fruit
*Cookies
DINNER: *Baked Beans
Frankfurters Tossed Salad
*Gingerbread

*These are the items that Jeannette prepared and put in the freezer before her vacation began.

"Change course—aye, aye, sir!"



In today's highly competitive appliance market, it's not always possible for a manufacturer to hold to the course of action and product specifications originally plotted.

Very often after he places an order with a supplier, unforeseen developments pop up to necessitate changes in design or quantity. Frequently schedules must be modified on short notice to meet new requirements.

So, as part of developing an organization that places customer satisfaction above all else, Delco Products has acquired the faculty of working under pressure to take care of last minute changes in specifications and schedules.

It's this flexibility—together with modern facilities, sound experience, and a thorough appreciation of all problems confronting a manufacturer—that makes Delco Products first choice of those who need quality appliance motors in volume.



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Strike Against Contractor on 'Unfair' List Ruled Violation of Taft-Hartley by NLRB

DENVER—A trial examiner for the National Labor Relations Board has recently held that the Denver Building and Construction Trades Council violated the Taft-Hartley Act's secondary-boycott ban by causing four men who were installing a soda fountain to strike because the manufacturer of the fountain was on the Council's unfair list.

The soda fountain was being installed in a drugstore at Aurora, Colo., a suburb of Denver. The fountain was made and partially installed by the Grauman Co. of Denver, which brought the charges against the unions.

The labor organizations involved, besides the Council, are Local 68 of the International Brotherhood of Electrical Workers (A.F.L.) and Local 3 of the A.F.L. Plumber's Union.

The trial examiner, Howard Myers, held that the Council and the two local unions jointly violated the boycott ban by calling the four employees on strike. Two of the men—an electrician and his helper—were employed by the Acme Electrical Co. of Denver and the two others—a plumber and his helper—were employed by the McCarty-Johnson Plumbing and Heating Co. also of Denver. The men left the job July 20 and 21, 1948, after being visited by a representative from each of the local unions.

On Sept. 28, 1948, the trial examiner had dismissed the case, holding himself bound by a prior determination by a U. S. District Court that the dispute did not affect commerce. The Court's determination was made in denying a petition by the N.L.R.B. General Counsel for an injunction against the unions' alleged boycott activities.

The N.L.R.B. reversed the trial examiner's ruling and directed him to complete his hearing on the case. In remanding the case to the trial examiner, the Board ruled that it is not bound by a court determination of its jurisdiction made in an injunction proceeding. The board, however, did not rule on the question of whether it should assert jurisdiction in the case, and has not yet done so.

On July 6, 1949, the U. S. Court of Appeals for the Tenth Circuit reversed the District Court decision on the injunction, holding that the al-

leged boycott activities, if found to have been committed, could have a "disruptive effect upon commerce, within the meaning of the Act."

In the latest findings on the case, the trial examiner recommended that the Council, Local 68, and Local 3 be required to cease "inducing or encouraging" employees of McCarty-Johnson Co., the Acme Co., or any other employer to engage in a strike or boycott with an object of forcing their employer to cease doing business with the Grauman Co. He also recommended that they be required to post notices for a period of 60 days in their respective business offices announcing that they will refrain from such illegal conduct in the future.

The installation of the soda fountain was finally completed in August, 1948, according to the trial examiner's report. He also reported that the Council had removed Grauman's name from its unfair list.

LaSalvia Gets Post on Board To Administer Cleveland Code

CLEVELAND—James J. LaSalvia, air conditioning engineer and author of the "Key to Air Conditioning" series in AIR CONDITIONING & REFRIGERATION NEWS, has been appointed by the mayor to a four-year term on the city's Board of Building Standards and Appeals, which will administer the new building code which was recently adopted by the municipality.

Besides LaSalvia, who will interpret the mechanical sections of the code, the five-man board includes an architect, structural engineer, and representatives of builders and labor.

Louisiana Charters Poque-Atkins For Refrigeration, Heating

MONROE, La.—Poque-Atkins Co., Inc., here, has obtained a charter from the Secretary of State to deal in refrigeration and heating equipment. Authorized capital stock is \$50,000.

Television

Commercial Dealer Uses Own Show To Sell Equipment

MILWAUKEE—One of the first refrigeration dealers in the country to use television for commercial refrigeration promotion is the Pflugradt Co. here, heating, air conditioning, and refrigeration organization.

Pflugradt is sponsoring "The Sports Picture" in which visiting sports celebrities are interviewed by Larry Clark, television master of ceremonies. During succeeding shows, air conditioning equipment and commercial refrigerators, as well as home freezers, have all appeared on the television screen. The emphasis is on the three services of heating, air conditioning, and refrigeration.

Shows appear weekly, and will feature all the equipment lines handled by the firm over a year's time. Photographs of an air conditioning installation at the Milwaukee Journal's radio station WTMJ appeared on one broadcast, pointing out how two 40-hp. compressors were installed and controlled to deliver 25, 50, and 75% cooling capacity as needed.

Irving Fisher Is Elected President of Weathermatic

LONG ISLAND CITY, N. Y.—Irving M. Fisher of New York City has been named president of Weathermatic Corp., 27-06 42nd Rd. here, it was announced recently by the board of directors.

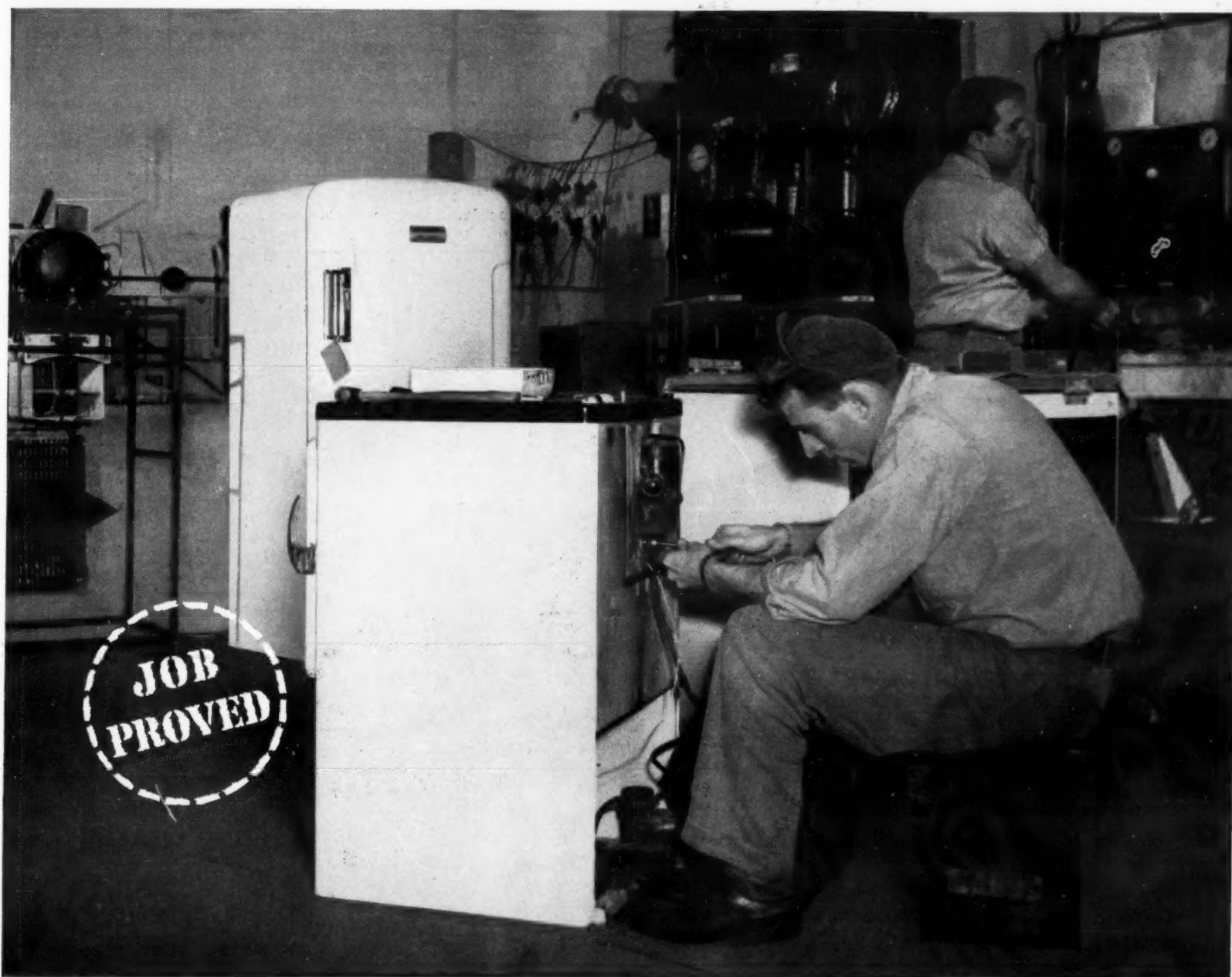


Irving M. Fisher

Weathermatic Corp., handling Carrier equipment, is engaged in the sale, engineering, installation, and service of air conditioning and refrigeration equipment.

Fisher was formerly in charge of the marine section of the air conditioning department of the General Electric Co. After graduating from Polytechnic Institute of Brooklyn, he was associated with several engineering concerns.

Fisher is a member of the American Society of Refrigerating Engineers.



PERFECT RECORD FOR 23 YEARS

Suniso Refrigeration Oils Prove Absolutely Trouble-Free for Service Shop, One Unit Running on Same Oil Since 1926

No lubrication trouble in 23 years while using Suniso Oils—that has been the experience of a large commercial refrigeration service shop.

Starting in 1926, this big-city concern has grown so large that it now keeps 20 men busy. On the premises alone it services some 750 units a year. No oils but Suniso have ever been used except for occasional periods during the war when Suniso sometimes was not immediately obtainable. The only

lubrication trouble ever experienced was with these substitutes. One domestic unit has been running on Suniso for 13 years without an oil change; and another for 23 years. The service manager says that Suniso Refrigeration Oils have definitely contributed to building up this fine business and making it profitable.

This is the kind of performance that servicemen everywhere have learned to expect from Suniso Oils.

Another measure of their quality is the fact that Suniso Oils are the predominant choice of equipment manufacturers in the refrigeration and air-conditioning field. Suniso is available in different grades. Each has an exceptionally low pour-point and wax-separation point, exceptionally high dielectric strength and resistance to chemical change when mixed with Freon or other modern refrigerants. Ask your jobber for free Suniso specification card.

SUN OIL COMPANY • Philadelphia 3, Pa.
In Canada: Sun Oil Company, Ltd.
Toronto and Montreal

SUNISO REFRIGERATION OILS
"JOB PROVED" THROUGHOUT THE INDUSTRY



Servel Maps Gas-Powered Unit Sales Drive In New York Area

NEW YORK CITY—With the lifting of restrictions on the use of gas for heating, a planned program of sales activity for the Servel "All Year" gas and steam generated air conditioning units will be undertaken in the metropolitan New York market, according to officials of Schwerin Air Conditioning Corp., recently appointed wholesale distributor.

The Schwerin Corp. will distribute through established heating and plumbing contractors in Manhattan, Bronx, Richmond and Queens, and in the counties of Westchester, Nassau, and Suffolk. Plans for an advertising and sales promotion campaign are now being shaped.

Watson Co. To Feature Hotpoint

OWENSBORO, Ky.—Watson Appliance Co., a new enterprise for this city, will feature Hotpoint electric refrigerators, freezers, and other appliances, according to the company.

TYPHOON
PACKAGED UNITS

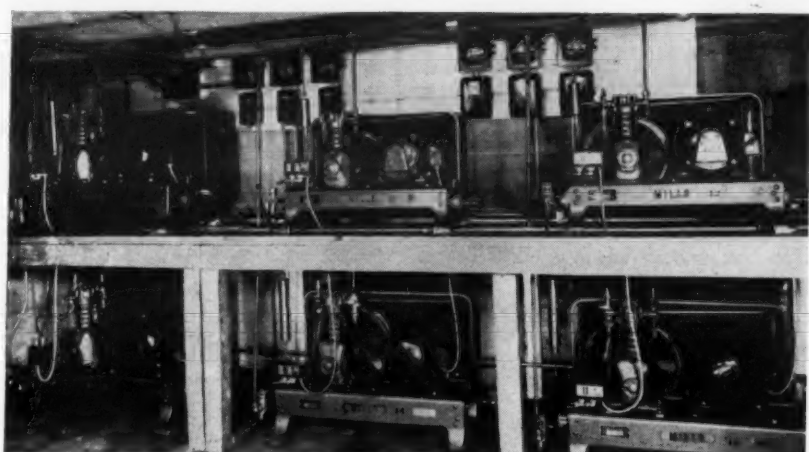
The MOST
Air Conditioning at
the LOWEST Cost Per Ton

1½ to 10-ton units 1909

NATIONALLY
ADVERTISED

TYPHOON Air Conditioning Co., Inc.
794 Union St. • Brooklyn 15, N. Y.

15 Units Serve \$350,000 'Super'



To meet the refrigeration needs of the \$350,000 supermarket recently opened in Lima, Ohio, by Howard Pangle 15 Mills combination air and water-cooled condensing units were installed. Several of them are double-decked to conserve space.



Modern interior of Pangle's "Master Market" features long rows of open refrigerated cases for fruits, vegetables, dairy products, and meats.

Sales Round the Clock:

Impulse Buying Skyrockets after Store Sets Up Wire Recorder So Window Shoppers Can Place Orders at Night or on Weekends

ALBANY, N. Y.—A sensationally effective merchandising idea, which makes it possible for the store to "go on selling" through the night hours and over weekends, has been developed by Hallenbeck & Riley, retailer in Albany.

A microphone installed outside the window, with a 25-cent slot for operating a wire recorder inside, which takes down the customer's name, address, and merchandise order is the stunt which has drawn nationwide attention.

It all came about, according to Al Young, store manager, when studying ways and means of off-setting a substantial sales slump since early 1949.

"I was struck by the fact that much of the store's overhead costs are going to waste, when it occupies expensive space, but is closed," he smiled. "Therefore, we figured, it would be practical to install some method by which customers could keep on shopping during the night hours or on Sunday."

Under the plan developed, all of the merchandise shown in the store windows is accompanied by a tag which gives a stock number as well as a price card. In the center of the window display is mounted a heavy metal box, in which is a microphone, built up with a relay and solenoid to operate a Webster-Chicago portable wire recorder, likewise visible in the center of the window.



Taking immediate advantage of the desire to buy that strikes nearly every person who "window-shops" in the evening or on weekends, this Albany retailer has a microphone and wire recorder so the shoppers can record their orders (and name and address). Next morning the data is taken off the wire and the orders shipped.

To operate the system, a customer attracted by merchandise in the window, need merely drop a quarter into a coin-phonograph type of slot, and "dictate" her name, address, and the number and price of the merchandise desired, through the microphone, which transcribes it onto the wire filament in the wire recorder. The latter unit is automatically shut off after a period of a few seconds.

Upon store opening the next day, or on Monday mornings following weekends, orders accumulated by the wire-recorder are replayed, and the merchandise packaged and sent out to the customer. There have been as many as 25 sales in a single evening, made in this way, according to Young.

The quarter slot is installed on the machine to prevent youngsters or sidewalk comedians from abusing the privilege of using the wire recorder. The 25 cents is refunded to the customer with her purchase, and this, of course, prevents persons not actually wishing to buy merchandise from actuating the machine.

The entire system was worked out by the store management, and cost less than \$25 to put into operation, according to Young. Its advantages

have been multiple—inasmuch as curiosity value brought hundreds of new people to peer into the window and to buy merchandise, the stunt gained much local publicity, and lastly, many "impulse sales" were stimulated when customers saw something in the store window which they needed, and relayed the order to the wire recorder.

Also, out-of-town visitors, who would normally be unable to make shopping trips into the city, can quickly leave an order which can be sent C.O.D. through the mail.

Wilder Heads Marketing For Aluminum Co. Sales

PITTSBURGH—Hugo T. Wilder has been made manager of the marketing division of Aluminum Co. of America's sales department, it is announced by D. Wilmot, ALCOA vice president in charge of product sales.

The marketing division is a new branch of the ALCOA sales organization. Among its main functions will be the study of marketing methods and selection of sales outlets.

Meet The Salesman Who Never Gives Up



MODEL DC12-2D

Specifications: 12 cu. ft. capacity; covers 28" x 76" floor space; 62" over-all height; 110-120 V. motor; 1/2 h. p. compressor; includes 3 dividers.

Here's one salesman who never gives up. He's always on the job... catching your customers' eyes with his colorful, 3-dimensional pictures... offering them frozen foods kept at a constant sub-zero temperature... inviting them to help themselves from his attractive enameled display case. His name...

BTC FROZEN FOOD DISPLAY CASE

And he comes to you with a heavy, all-steel Bonder-



MODEL DC18-2D

Specifications: 18 cu. ft. capacity covers 28" x 98 1/2" floor space; 62" over-all height; 110-120 V. motor; 1/2 h. p. compressor; includes 5 dividers.

ized construction that includes five inches of vapor-sealed insulation... full-flooded evaporator plate liner... precision-engineered motor and compressor... one-piece stainless steel top trim... and a 5-year Warranty against food spoilage and mechanical defects in hermetically sealed compressor.

Put this persevering salesman to work for you, then watch your frozen food sales soar.

THE
BREWER-TITCHENER
CORPORATION
Binghamton, New York

New "P-H" FLORIST CABINETS Keep Flowers Fresher-Longer



Patented Grad-U-Matic Air Conditioning Does The Trick!

The exclusive Grad-U-Matic cooling system scientifically retards blooms and keeps cut flowers salably fresh for longer periods of time. Cooling from the bottom upwards, the gentle action of its controlled air flow eliminates cold air blast on flowers and plants.

Beautifully designed black porcelain interiors and exteriors—modern fluorescent lighting—adjustable, chrome edge, glass shelves—and non-fogging Triple Thermopane glass doors provide the finest possible setting for your floral display. Available in 2, 3 and 4 door models.



CHOICE OF 50 REACH-IN CABINETS IN ALL PORCELAIN OR STAINLESS STEEL

Available with solid or glass doors—self-contained or remote control—with or without Ice Maker Coils. Sizes range from 20 Cu. Ft. to 90 Cu. Ft.



DRY BEVERAGE COOLERS

Equipped with Roll-Away doors for faster service—100% porcelain exteriors for greater service and longer life. Available in 6', 8' and 10' sizes—Remote or Self-contained.

Write
for information



PUFFER-HUBBARD
MANUFACTURING COMPANY
Grand Haven, Mich. Established 1898

MANUFACTURERS OF REACH-IN CABINETS, DAIRY-DELICATESSEN CASES, BEVERAGE COOLERS, DOUGH RETARDERS, FLORIST CABINETS AND WALK-IN COOLERS

Converted Meat Case Gives Bakery Space for Whipped-Cream Items

ENGLEWOOD, Colo. — A usual problem of bakers specializing in whipped cream-covered pastries—that of insufficient refrigerated display space—has been solved by converting a standard meat case into a whipped cream products case at Golden Brown Bakery, here.

Arjen Russman and John Jeck, former Chicago bakers, who operate the bakery, have found whipped cream products among their most rapidly-selling, profitable items. To provide adequate refrigerated space, the bakers desired a case large enough to hold at least 5 full 36-in. trays of whipped cream specialties at a time.

As no such case was available on the market, a refrigeration contractor suggested that it might be possible to convert another type of case for the purpose, as well as adding additional storage refrigeration on the bakery floor.

The result was installation of a standard 10-ft. National Store Fixture Co. meat case, done in porcelain throughout, with a slanting 45-degree front, and a 2-door Tyler reach-in box, located on the opposite side of the floor, for reserve storage.

The two refrigerated cases are served by a 3-hp. condensing unit, which provides refrigeration for increased sized coils and blowers installed in the meat case, plus standard coils in the reach-in box. A blower keeps air circulating at 35° F. through the National case.

In addition to the meat case and the reach-in box, a 10 by 12-ft. walk-in refrigerator has been installed in the basement of the bakery, in which more whipped cream goods are kept, as well as all baking ingredients.

Super-Cold Corp. Profit For 6 Mos. Shows Decrease

LOS ANGELES—Super-Cold Corp. and subsidiaries have reported a net profit of \$138,671, or 22 cents a share, on consolidated sales of \$2,886,236 for the six months ended June 30.

This compares with a net profit of \$170,750, equal to 28 cents a share, on sales of \$2,653,392 for the like period of 1948.

For the quarter ended June 30, net profit was \$164,712, against a net loss of \$26,041 for the corresponding quarter a year ago. Sales for the three months totaled \$1,875,864, compared with \$1,010,372 for the second 1948 quarter.

Group Changes Name

CHICAGO—The American Washer and Ironer Manufacturers Association has announced a change in its name to the American Home Laundry Manufacturers Association. This change, the association said, was in recognition of the trend toward the fully equipped home laundry.

All Town's Drugstores Cooled

LAKE WALES, Fla.—The Ridge Drugstore on Park Ave., operated by Dr. and Mrs. R. H. Weaver, is now air conditioned.

A 5-ton Frigidaire air conditioning unit was installed by Tom Crosby.

All three drugstores in Lake Wales are now air conditioned.

Jordy Engineering Becomes 4-Star Dealer for Airtemp

NEW ORLEANS—Jordy Engineering Co. here was recently appointed a "Four Star" dealer for Chrysler Airtemp air conditioning equipment, according to an announcement by J. York Feitel, Jordy president.

Feitel said that inasmuch as one of the duties of the company under the new arrangement will be to appoint dealers, the organization has gone on a completely wholesale basis.

He also noted that Jordy is emphasizing year-round air conditioning during August.

The firm has a complete installation department, headed by Robert Schupp.

Eastern Market Acquires New Refrigerated Truck To Move Fresh Produce to Customers



HAMBURG, N. Y.—Refrigerated truck service in transporting produce to his wholesale and retail customers is advertised on the new truck of Jimmie Imburgia who operates Jim-

mie's Market in Hamburg.

The white truck with dark lettering does an effective advertising job for the market, playing up the freshness of refrigerated produce.

Reed's Refrigeration Files

BUFFALO—A business name has been filed in the Erie County clerk's office for Reed's Refrigeration & Appliance Service, 312 Belmont.

Rising Sales of Commercial Firm Prompt Stepped-Up Output

HUDSON, Wis.—A decided increase in sales of its ice cube makers, bottle coolers, and other refrigerated items has caused Nor-Lake, Inc. here to cancel employee vacations and continue production.

Don Stevens, sales manager, declared that the company plans to introduce a direct draw and automatic ice cube maker during the fall.

He noted that the company recently received an order for two of its Mighty-Midget ice cube makers from Anchorage, Alaska.

Pair Opens New Arkansas Firm

MAGNOLIA, Ark.—T. W. Galier and J. R. Weatherford of Little Rock have opened their South Arkansas Air Conditioning Co. here.



Here's a Servel bargain you can't afford to miss!

LOOK to LARKIN



for
Quality

HIGH
AND
LOW BOY
MODELS

LARKIN
WALL
HUMI-TEMP

Quality speaks a language everybody understands. Wholesalers, dealers, and users alike know that the name Larkin means quality—of workmanship, materials, and performance.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

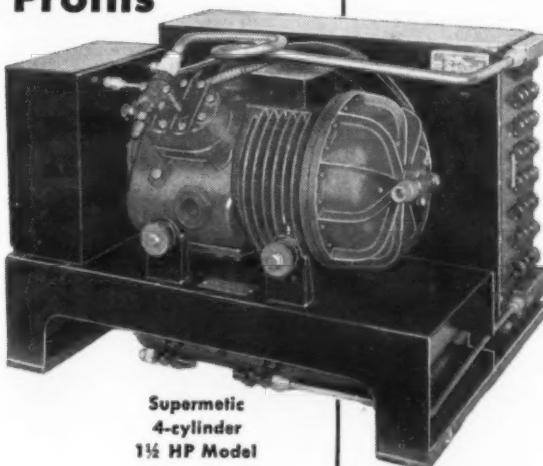
519 MEMORIAL DR., S.E. • ATLANTA, GA.

Servel hermetically sealed Supermetic units are available in all sizes from 1/4 HP through 3 HP. Also available is a full line of belt-driven units built around Servel "Superpact" compressors for direct current, odd frequency, and mobile refrigeration applications.

Servel Supermetic Features That Build Sales Profits

- Compact—Simple to Install
- "Pull-Out" Rail Edge Base
- Fully Wired
- No Oil "Slugging"
- Forced-Feed Lubrication
- No Belts—No Seals
- Low and Medium Temperature Models—1/4 HP thru 3 HP

You get more than a
condensing unit when you buy
a Servel Supermetic



Supermetic
4-cylinder
1 1/2 HP Model

How would you like to have one of the world's largest refrigeration plants, fully staffed, at your disposal? Modern research and engineering facilities, production machinery of the latest type, an experienced organization of refrigeration experts ready to help you build a better product, or a better business.

You can get all of this—at no extra cost—when you buy Servel condensing units. Servel's entire resources and knowledge of the commercial refrigeration and air conditioning business are at your disposal—to help you solve your problems—to help you make more money.

Servel's "hot room" can test your fixture under simulated field conditions. Application engineers will offer helpful recommendations to better your product. Production experts will consult with you, upon request, or you may call on our sales and advertising departments if you need assistance in these fields.

If we can help you, write, wire, or phone Servel, Inc., Electric Refrigeration Division, 1928 Kentucky Avenue, Evansville 20, Indiana.

Servel

SUPERMETIC

for every commercial
refrigeration requirement

They'll Do It Every Time By Jimmy Hatlo



Do You Have 'One Foot In the Door'?

MODEL BD36BR 1/2 H. P. HEAVY DUTY 36" BELT DRIVE

EXHAUST FAN

Net Price **49⁵⁰**
LIST PRICE \$99.00

OTHER 36" HEAVY DUTY BELT DRIVE EXHAUST FANS

MODEL NO.	HORSEPOWER	C.F.M.	O.D.	NET PRICE	LIST PRICE
BD36AR	1/4	7300	42"	\$49.50	\$ 99.00
BD36AS	1/4	7300	42"	54.50	109.00
BD36BR	1/2	8100	42"	49.50	99.00
BD36BS	1/4	8100	42"	54.50	109.00
BD36CR	1/2	9200	42"	69.50	139.00
BD36CS	1/2	9200	42"	74.50	149.00

BD36AR } Randall self-aligning
BD36BR } graphited bearingsBD36AS } S.K.F. rubber-mounted
BD36BS } ball bearings
BD36CS }

Heavy, one-piece Venturi Frame. Scientifically designed for greatest efficiency. Extra-strong, arc-welded (not spot-welded), round tubes give least resistance to the air, at the same time providing greater strength.

New improved blades designed for greatest efficiency. No dead areas. Air movement all the way down to the hub. Comparison proves that Standard Electric is your best choice.

GUARANTEE

Every STANDARD ELECTRIC Exhaust Fan is guaranteed for a period of one year. We will replace, at the factory, free of charge, any unit proving defective within that time.

"The Big Name in Fans"

STANDARD ELECTRIC

MANUFACTURING CO.
WEST BERLIN, N. J.ORDER NOW
FOR
IMMEDIATE
DELIVERY

GENERAL ELECTRIC

... 1/2 H.P. rubber-mounted GE motor, 115 volts, 60 cycle single phase A. C. Three-phase and D. C. motors also available.



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An Overlooked Opportunity
For Extra Profits

One plus-business for manufacturers of every item used in a refrigeration system has been treated like an unwanted orphan. Yet, it's capable of almost unlimited expansion. We refer to the sale of freezers to filling stations and roadside stands.

Evidence: perhaps half of America's gasoline filling stations now have bottled beverage coolers on their premises. The remaining 50% will pay premium prices for these refrigerated specialties—if and when they are offered one. Why? Because they earn a larger margin of profit on their thirst-slaking sales than they do on gas and oil.

Most tourists carry youngsters in their automobiles. These kids would rather have a frozen "popsicle" or "eskimo pie" than a "coke." They prefer frozen solids to cooled liquids. But not one in 900 filling stations have a freezer from which they can sell chocolate-coated ice cream and flavored-ice-on-a-stick.

What a market for progressive freezer manufacturers and salesmen! And what an opportunity for the pregnant refrigerated vending machine producers! All in all, there's a ready demand for at least 1,500,000 units a year in this push-over market—if it is promoted and exploited.

This is just one of the vacant avenues to prosperity awaiting traffic from our industry. Just glance at the opportunities awaiting YOUR imaginative exploitation and penetration in this virgin market, and you'll agree that not in many coming years should this ballooning business suffer.

The ice cream industry is pointed toward an annual sale of one billion gallons of ice cream in 1949. Sales in 1947 probably went over the three-quarter billion mark, according to the best available statistics, and in 1948 (at latest reports) they were zooming.

In 1941 (the last year for which we have an authentic record) a paltry 78,000 ice cream cabinets were sold. To store the millions of gallons of ice cream consumed annually, it's a cinch that many thousands of limping-along old ice cream cabinets will have to be replaced as soon as possible, and that many thousands of new ice cream cabinets should be installed to accommodate the sharply increased public yearning for ice cream.

Has this market been neglected by a great many commercial refrigeration manufacturers and dealers? Yes!

Pre-war patterns of sale and distribution of ice cream cabinets—largely controlled by ice cream producers—do not necessarily put a "hands off" sign on this market for new manufacturers and enterprising dealers. To the commercial refrigeration dealer who offers top equipment, superior service, and imaginative merchandising hints, the ice cream cabinet market offers a challenge to his aggressiveness and ingenuity, with high profit returns as his reward. So many ice cream cabinets were re-sold as "home freezers" during World War II that the immediate replacement demand for ice cream cabinets defies all attempts at analytical surveys.

Back to this gas station and roadside stand business: It won't come in over the transom. Dealers will need to hop in their cars, and make calls on every prospect along the well-traveled highways fanning out from their places of business.

After you've made the first sale or two, call back frequently to check up on the plus-profits these customers have made from the sales of frozen tid-bits. Armed with these figures, convincing the rest of these tourist-catering prospects should be relatively simple.

Selection, Application Of Expansion Joints Is Covered In New Booklet

MAYWOOD, ILL.—One of the most complete compilations of engineering data on corrugated type expansion joints ever brought together has just been published in bulletin form by Chicago Metal Hose Corp., here.

This 28-page bulletin, titled "Design Guide to Expansion Joint Selection and Application" is a significant contribution to the field of power piping. It is written in non-technical language and contains numerous illustrations, charts, and tables.

It gives much needed information to operating and engineering personnel in industrial fields dealing with piping where pressures and temperature extremes exist, and where pipeline expansion under working conditions is a primary consideration.

This "Design Guide" includes pertinent engineering data on both "free-flexing" and "controlled-flexing" corrugated expansion joints. All aspects entering into the application and selection of expansion joints for the various requirements are discussed and data presented. Selection factors entering into the design consideration of expansion joints are presented in detail. These factors, namely temperature, pressure, axial traverse, lateral traverse, materials, and vibration are all presented in turn.

Proper methods of anchoring are illustrated and data is given for each possible type of piping installation. Formulas for calculating required anchor strength are shown.

The outstanding contribution to this phase of the piping industry contained in this Design Guide is the table giving data on the combined axial and lateral motion. This table was based on exhaustive field and laboratory tests carried on by the Chicago Metal Hose Corp. research and development laboratory.

Data in this table shows the number of corrugations necessary for any size expansion joint under most combinations of axial and lateral motion.

E. V. Loyd Appointed Manager of New GECC Office In Tampa, Fla.

NEW YORK CITY—General Electric Credit Corp. has just opened a new office in Tampa, Fla., according to D. O. Thomas, district manager, Atlanta, Ga. Quarters are located at 443 Grand Central Ave., and E. V. Loyd, formerly local representative in Tampa, has been appointed manager.

WILSON REFRIGERATION, INC.

- FARM AND HOME FREEZERS
- REACH-IN REFRIGERATORS
- WALK-IN REFRIGERATORS
- FARM MILK COOLERS

DIVISION OF WILSON CABINET CO., INC.
SMYRNA • DELAWARE



If You're Interested in Refrigeration
You'll want a copy of the new
DEPENDABOOK No. 150

Refrigeration
(Parts) Catalog

DEPENDABOOK Number 150 is jammed full of illustrated refrigeration parts and supplies at rock-bottom prices... Depend on the DEPENDABOOK. Write for your copy.

The HARRY ALTER CO.

1728 S. MICHIGAN AVE., CHICAGO 16, ILL.
134 LAFAYETTE ST., NEW YORK 13, N. Y.

WHOLESALE
ONLY

Zoning Helps Cut Cooling Costs

11 Coil-Fan Locations Effect
25% Saving for Remote System

ST. LOUIS—A 75-ton air conditioning system which is said to operate at 25% less over-all cost than the usual cooling system of similar capacity, is an outstanding feature of the new Hampton Village Medical Center, ultra-modern medical office building recently completed at Hampton and Chippewa Blvd., here.

The Medical Center, a long-low building built in Williamsburg Colonial style, is part of an \$11,000,000 project which will park 1,500 automobiles around the world's largest supermarket.

With an extremely high heat load, and heavy traffic in the building, it was felt necessary to provide sharply-defined zone control in the 150 offices in the building, with as low an overall operating cost as possible.

The job went to Sears & Piou, St. Louis Carrier distributor. The firm, which handles plumbing, heating, and air conditioning simultaneously, anticipates that this installation will lead to many similar contracts in the future.

The tremendous savings in the system have been made possible by the use of 11 small blower and coil units, located in the roof mansard of the building, which serve primary cooled or heated air, according to the season, to 150 Carrier Weather-

makers, located under the window in each office through the building.

Refrigeration is supplied for the primary blower units by three 25-ton Carrier units, equipped with interchangers, located in the basement of the Medical building. Also located here are two gas-fired boilers, producing hot water for coil heating, likewise delivering heated primary air to the Weathermakers.

The three Carrier refrigeration compressors are of the variable type, which allows maximum flexibility, and 6 stages of operating output.

The refrigeration units supply chilled water directly to coils in the 11 blower units, through the mansard of the building. Each of the blower units serves a group of Carrier Weathermaker units located below—in effect, each of the eleven being a separate small "air conditioning system" with individual ductwork to form 10 to 15 offices.

In order to control cooling in each of the offices, the occupant merely adjusts a room temperature control valve, which changes the amount of primary air mixed with the room air, to produce the desired result.

Room air is recirculated individually in each office by the Weathermaker unit with a control valve making it possible to admit anywhere from 25% to 100% fresh outside, correctly-conditioned air as desired.

Many combinations are thus worked out individually, without affecting the output of the refrigeration equipment. Under normal summer loads, each of the Medical offices can be kept at 80° F., admitting

only 25% of primary air from the mansard blowers, at 45° F., according to Robert Nolan, Sears & Piou engineer, who designed the installation.

"In this way, the physician or dentist utilizing any of the offices keeps his own zone as cool as he wants it, with no additional operating expense if the office is unoccupied," Nolan said.

"Mixing pre-cooled, or pre-heated air with the room air has the faculty of providing proper temperature, without expensive needless waste."

Through the primary air system, the load on individual primary air blower units is automatically met by the interchangers in the refrigeration installation. Thus, any office congested with heavy traffic or exposed to high sunload automatically receives the benefit of extra refrigeration and increased production from the primary air blower serving the area.

"While this is a startling departure from conventional installations, it has worked out remarkably well," Nolan said.

"The acceptance of the plan was due entirely to soundness of design, and the remarkable savings which we were able to illustrate almost from the outset."

"There is no sacrifice in any way of the high standard of air conditioned comfort in either season, and we feel that no other installation could have concentrated air conditioning capacity more effectively in spots where it is needed."

Cold water for the primary air

blower units is piped up from the basement in 3-in. risers, as is hot water from the gas-fired boilers providing winter heat. An evaporative tower located on the roof of the Medical building provides adequate cooling for the three Carrier condensers.

In addition to the Medical building, the Hampton Village shopping center contains 150 individual shops, all of which are cooled with 5-ton package Servel air conditioning units.

When ultimately completed, the shopping center will represent the largest area of commercial air conditioned buildings and offices in the middle west.

The St. Louis Carrier distributor has found the Medical Center cooling job of such interest to building managers, realty firms, and contractors, that it used the job as the basis for a 5-column by 20-in. newspaper advertisement.

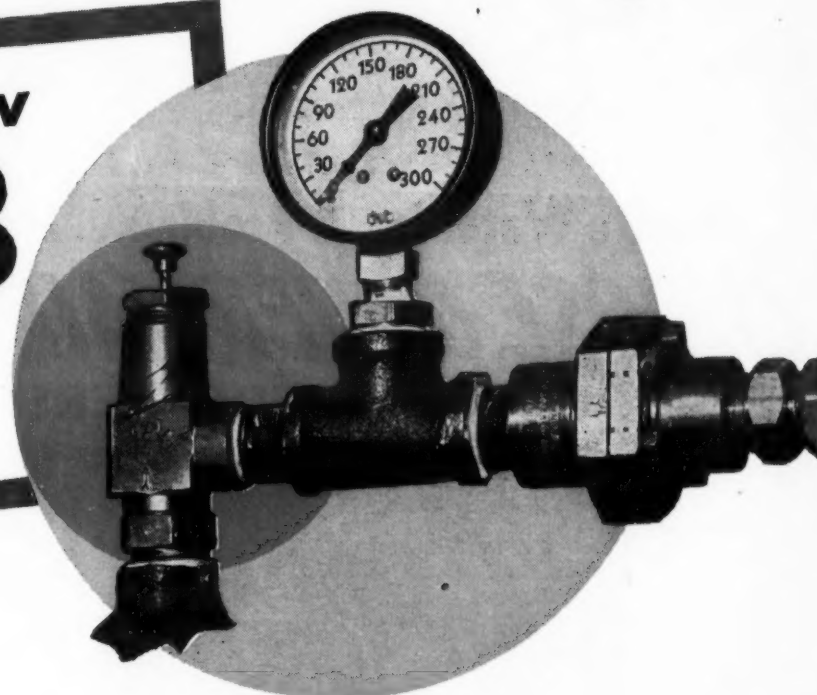
Included in the advertisement were photographs of the Medical Center itself, a Carrier Weathermaker installed in a physician's office, water circulating pumps and gas-fired boilers for winter heating, and the three Carrier variable compressor units for summer cooling.

Original publication achieved such high interest that the company ordered thousands of glossy-paper reprints, which are being utilized as direct-mail pieces.

The entire story of the unusual air conditioning problem represented by the building and the "primary air system" utilized to overcome it is included.

No Freon Leakage!

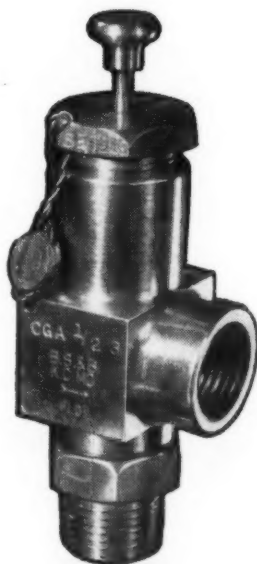
from the new
BS&B
FREON RELIEF
VALVE



YES . . . this new valve has been proved tight in excess of 200 blowdowns. And for even greater protection against possible leakage caused by foreign particles in the system, a SAFETY HEAD rupture disc device can be installed on the outlet connection (see ASME Unfired Pressure Vessel Code, para. U10-b).

BS&B's large production facilities insure volume production of this new Freon valve. It is ideal for installation on medium and large systems.

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Funeral Home Needs High Peak Capacity & Low Noise Level

Storage System Meets These Requirements, Aids Humidity Control

By C. Dale Mericle

KALAMAZOO, Mich.—If you were asked to bid on the job of air conditioning a large funeral home where the normal load was 10 tons but suddenly jumped to 18 during the short funeral services, and the owner was insistent that humidity be kept within close limits, and, most important, that the system be extremely quiet even though the air conditioning unit had to be located directly below the chapel, what sort of a system would you recommend? That's the problem that faced David D. Stafford, head of Stafford-Smith, Inc., air conditioning and commercial refrigeration contractor here, in connection with the Truesdale funeral home.

And he came up with a solution that has been used before, but certainly very infrequently, and finds that this is apparently working out satisfactorily.

What he did, in a nutshell, was to install a 10-ton General Electric compressor connected to a Dole "latent heat" unit which builds up ice on plates in a large insulated water tank. Cold water is pumped from the tank through a central-station conditioner, the additional 8-ton capacity required for peak loads being obtained by the melting of ice accumulated in the water tank.

"Of course, designing and install-

This large, insulated water tank housing two Dole "latent heat" units in the basement of the Truesdale funeral home permits the air conditioning system to cope with short peak loads of

ing the system wasn't quite as simple as that," Stafford readily admits. "What we did in reality was to install the system first and then make the drawings."

"The job went in as part of a complete interior remodeling job handled by the Remysie Co. here. The funeral home, which is operated by Lavelle Farmer, consists of an old, but large, frame building.

"This gave us considerable trouble when it came to locating equipment and running ducts," Stafford explains. "Finding free wall spaces where we could install the risers was quite a problem."

And then there was the fact that the 60-ft. long chapel is designed with two movable partitions so its size and seating capacity can be increased or made smaller in accordance with the number of people attending the services. The maximum capacity of the chapel is approximately 300 persons.

Because of the partitions, air outlets had to be provided for each section, points out Stafford. Ducts also supply conditioned air to two sections (including the family room) adjoining the chapel, and to several slumber rooms, the reception room, and casket display room on the main floor, and to two offices on the second floor.

Because quarters were so cramped in the basement Careyduct was used extensively where insulated ducts were deemed advisable. This type of duct also cuts noise transmission, Stafford said.

Incidentally, the decorative scheme employed throughout represents a new note in funeral homes. Instead of being somber, the tone is somewhat light, homely, and cheerful.

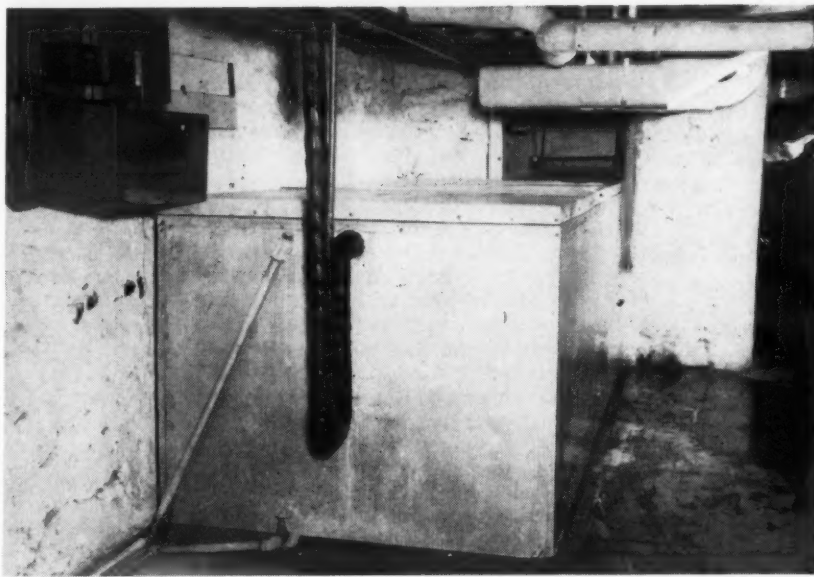
But getting back to the air conditioning problem, Stafford offers several reasons for his selecting such a system for this installation.

"As far as the question of handling that normal load of 10 tons and the relatively short but sudden loads of 18 tons, we could probably have done that with a larger compressor using a capacity unloading system of some sort.

"But there were two main objections to that. A compressor that large would have necessarily produced more noise. And it wasn't practical to locate the compressor anywhere except in the basement directly beneath the chapel.

"Then there was the problem of controlling humidity. Farmer, the owner of the funeral home, was very insistent that the humidity be closely controlled. He says that humidity too low will dry out the bodies, and that humidity too high is not good for them either.

"With an ordinary direct expansion system the coil temperatures



18 tons although its normal capacity is only 10 tons. Ice built up on the plates in the tank supply the extra B.t.u. needed when funeral services are conducted in the chapel.

would fluctuate as air conditions changed. In this system we are always delivering 32° F. water to the air conditioning unit, which keeps the relative humidity more nearly constant," explains Stafford.

Design of the job called for maintaining 80° d.b. with 50% relative

humidity, he said.

The condensing unit is a 10-ton G-E model CM83J water-cooled job hooked up to an evaporative condenser. The refrigerant ("Freon-12") is circulated through two Dole LSH-100 "latent heat" units mounted in an insulated water tank measuring 47½ in. high, 54 in. wide, and 127 in. long.

From this tank 32° water is circulated by a Gould pump of approximately 200 g.p.m. capacity through the coils in the 18-ton model LHDV-150 G-E vertical conditioner.

Operation of the condensing unit is governed by a pressure control which is set to maintain about 1-in. thickness of ice on the plates in the water tank.

The water circulating system between the conditioner and the tank is a closed circuit which incorporates an automatic modulating water valve. This valve, which has been set, for the present at least, to supply 32° water to the coils, regulates the proportion of water pumped from the tank to the return water that is by-passed around the tank.

Operation of this part of the system is controlled by a thermostat with its bulb located in the return duct from the chapel which regul-

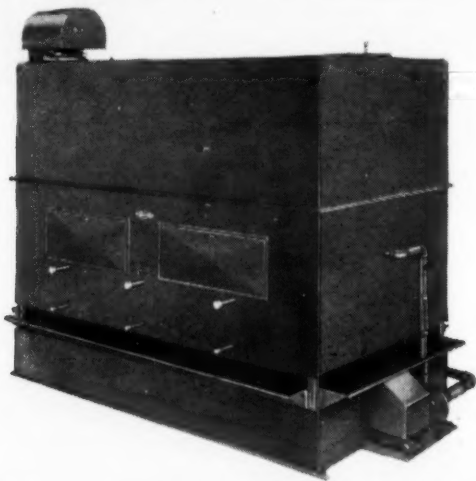
(Concluded on next page)



Typical of the air outlets employed in the Truesdale funeral home air conditioning installation is this one in the office of Lavelle Farmer, owner, Stafford points out.



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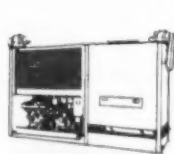
If you think a camel goes a long way on a little water . . . then you should see this Governair Evaporative Condenser operate! Save up to 95% of water normally used by water-wasting type condensers! Eliminate waste-water disposal problems and pumping costs, too. Engineered to give maximum efficiency and performance at a minimum cost.

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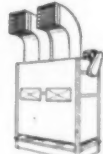
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Installation of Big Air-Conditioning System In Cramped Quarters Poses Problems



Chilled water from the tank in the adjoining room is circulated through this 18-ton G-E conditioner (left) by the pump at extreme left. Pump in foreground handles condensate for the steam system.

David D. Stafford, head of Stafford-Smith, Inc., commercial refrigeration and air conditioning contractor in Kalamazoo, Mich., points out some special features of the air conditioning installation in the Truesdale funeral home to Lavelle Farmer, owner and operator of the mortuary.



Simple Switch Prevents Tampering With Air-Conditioning Controls

(Concluded from preceding page)

lates the operation of the water-circulating pump.

The only control readily accessible to the staff of the funeral home (and it's conveniently mounted on a first-floor wall) is an on-off switch which also controls ventilation, Stafford said.

Normal operation calls for 25% fresh air, but 100% fresh air can be supplied for ventilation.

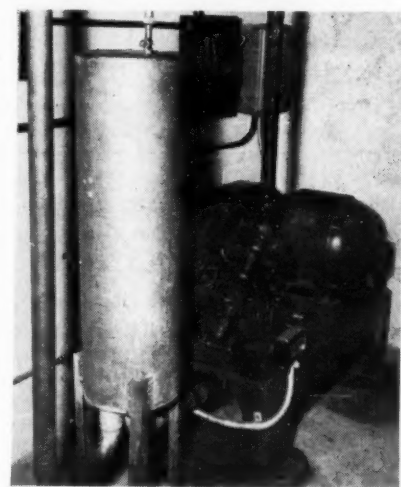
"Usually after a service is over, this control is turned to 'ventilation,' which brings in 100% outside air for a short time. The refrigeration system is automatically cut out during this period. After this interval, the control is switched back to 'cooling.' At night, the system is usually set for ventilation."

Year-round air conditioning is provided by this system, steam coils being located in the conditioner. A thermostat in the chapel regulating a modulating steam valve is the primary control on the heating cycle.

The fan is so controlled that it will operate only when the air at the discharge side of the conditioner is

at a temperature of at least 65° F., Stafford explained.

Also provided is modulating control of the outside air damper, so



Because noise had to be kept at a minimum, a large muffer was placed in the discharge line from the 10-ton G-E compressor.

that when the outside air drops below 55° this damper is closed and the return air damper opened.

"This arrangement prevents possible freezing of the steam coils and also keeps the heating costs from going too high," he said. "However, the system could be turned to 100% ventilation if desired."

While this funeral home installation is somewhat unusual in method, Stafford recently completed another air conditioning installation that is somewhat unusual in purpose.

In the large and highly popular Schensul cafeteria in Kalamazoo that can seat some 400 customers at a time, his firm installed a 15-ton G-E system to air condition the kitchen,

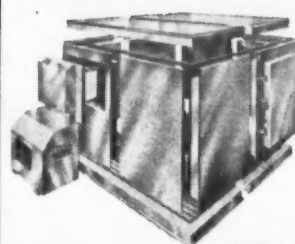
dishwashing room and counter area.

"This system is intended solely for the comfort of the employees," Stafford declared, explaining that 20 tons of air conditioning had been installed 10 years ago for the patrons.

"We circulate 100% fresh air through the system, which is a 15-ton G-E job. Operation of the fan is manually controlled, but when the outside air temperature rises above 65°, the condensing unit automatically starts."

Air outlets located directly over the steam tables and other sections of the long counters in the cafeteria are baffled to direct the air sideways where it can fall on the employees rather than the food.

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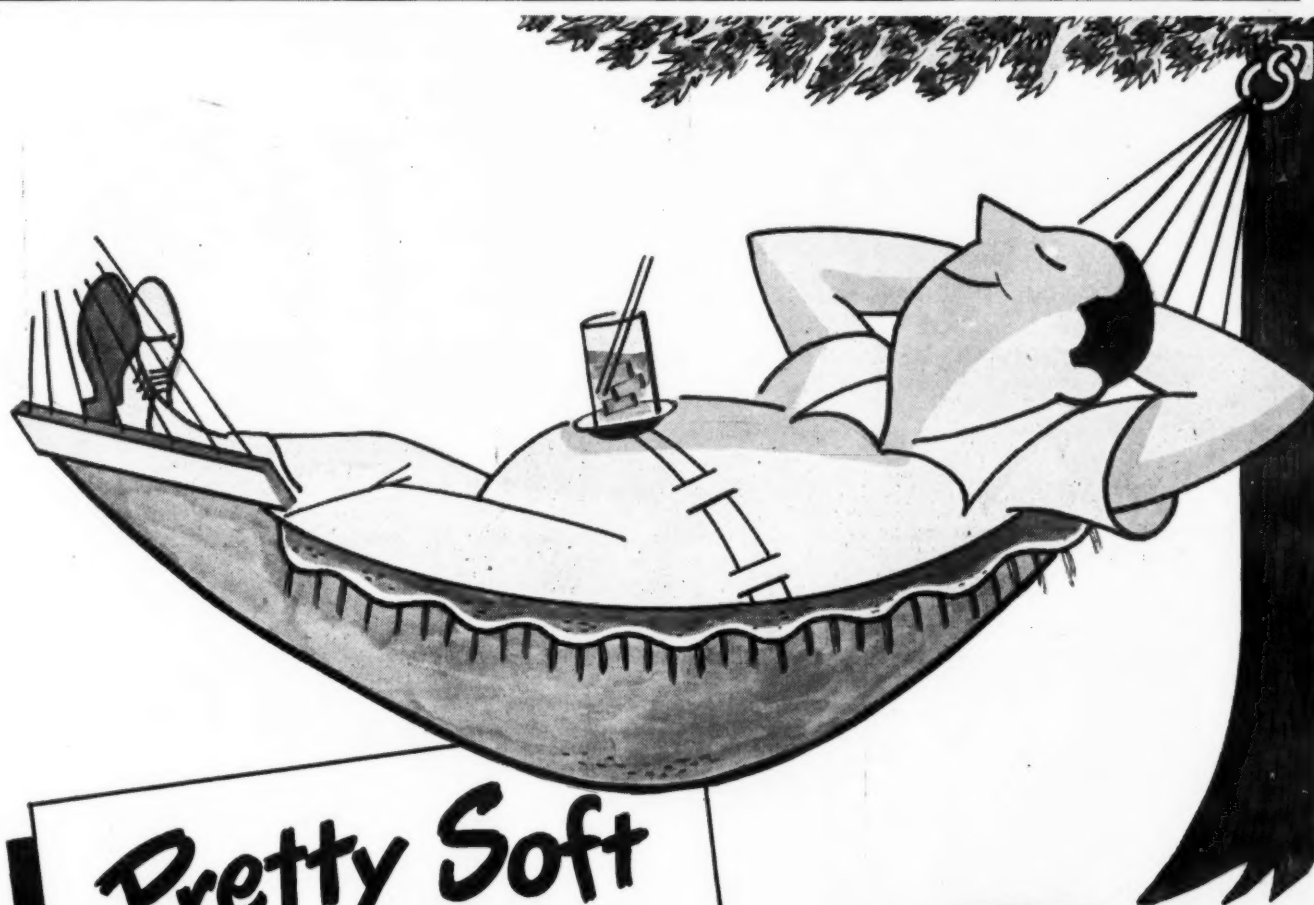
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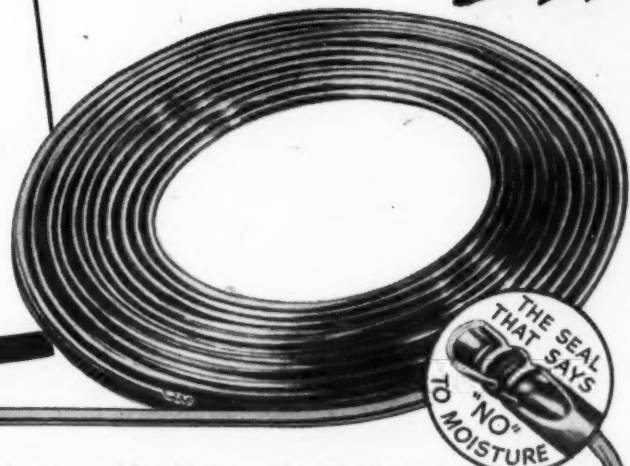
Air Conditioning & Refrigeration News



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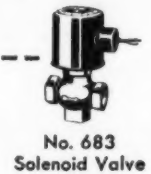
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Freezers Average One a Day as Result Of Promoting Rentals Instead of Sales

SANATOGA, Pa.—A rental system that resulted in the sale of 280 freezers for the year 1948 is still in effect at the Sanatoga Radio Co., here. For the months of May and June this year, it sold 68 freezers out of 72 placed in homes.

"Right after the war, we began to take a big interest in the sales potential of freezers," related store manager Warren Wittenmeyer, "and the few that we were able to get we put in on a trial basis."

"We knew, that once a freezer found its way into a home, a sale would in all probability follow."

The Sanatoga Radio Co. began to promote rentals early in 1948. It first started off with newspaper advertising that covered a wide radius around the store. Strip advertising was found the best attraction for readers. This is a strip the width of a page and about 2 in. deep with a heavy border around it, placed at the bottom of the page.

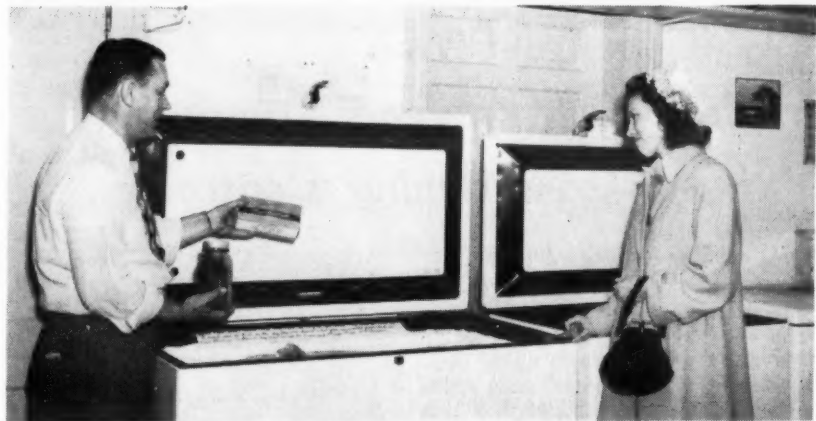
This type advertisement was used in the Norristown and Pottstown newspapers, inasmuch as Sanatoga is located between them and their coverage included all the rural, suburban Philadelphia, and surrounding area that Wittenmeyer wanted to cover.

The advertisement simply read: "Home freezers for rent. Call on Sanatoga Radio Co. or phone at your convenience. Low rental rates."

The store also used spot announcements on the radio stations covering



This 200-ft. appliance showroom of the Sanatoga Radio Co. indicates the growth of the firm, which originally occupied the front porch of the home pictured above.



Instead of trying to "sell" this freezer, the salesman is persuading Mrs. Prospect to rent it at \$5 a month (plus \$10 installation), because once it's in the home, the freezer sells itself.

its market area. Spots were made at various morning and evening hours when listenership is highest.

This campaign was followed up by personal telephone calls. Oliver Wittenmeyer, president of the firm, and his secretary took local phone books and made a stipulated number of calls each day. They went through each book completely.

SHOWED IMMEDIATE INTEREST

"Many residents showed immediate interest and we asked them to drop in our store or let us have a salesman pick them up and bring them in to see the freezers in operation. Others asked us to call back."

In addition to these contacts, the company painted signs on their delivery and installation trucks. Written on each truck's fenders was the following phrase: "Go to your freezer instead of your store."

On the panels: "There's a Good Deal at the Sanatoga Radio Co." These trucks cover the countryside and are seen by farmers and other rural residents.

The store itself, stands out on U. S. highway 422, a main artery between Norristown and Reading. It is located on a hill and motorists driving between these points cannot fail to see the store.

Originally this store was the porch of the Wittenmeyer's home. As business volume increased, the porch was taken off and a modern 200-ft. one story structure built in its place along the highway.

With all lights on during evening hours, it stands out as a landmark to passing motorists. Full length windows allow a view of everything in the store.

Neon signs in the windows read: "Freezers for rent." A large sign over the front says: "Come in and look around, we have a Good Deal to show you."

Inside the store is a group of G-E freezers. Each freezer is full of frozen vegetables, fish, and meats. Some of these packages are given to customers to take home to try eating frozen foods.

SALES HANDLE THEMSELVES

"We do not try to sell customers a freezer," says Wittenmeyer, "because many don't know if they need one. Others don't want to spend the money. We stick to rentals and let the sales handle themselves."

The store charges a \$10 installation charge and five dollars a month rent. Thus the first month costs \$15 and five dollars thereafter. If any customer desires to purchase the freezer before six months, he is given the installation and rental charges towards the purchase. If he decides after this period, he is given half allowance.

Every few months the Sanatoga Radio Co. tries new promotions. These have paid off in new business

and introducing the store to more residents.

Several months ago the store announced an "oldest washer in use contest." This was promoted via newspapers, radio, and direct mail. Contestants had a two months period in which to notify the store by phone, mail, or personal visit of their washer and approximate age.

Wittenmeyer or his salesmen visited the contestant's home to get the serial number on the washer to check with the factory for the true age. While in the home they were able to point out the advantages of owning modern appliances.

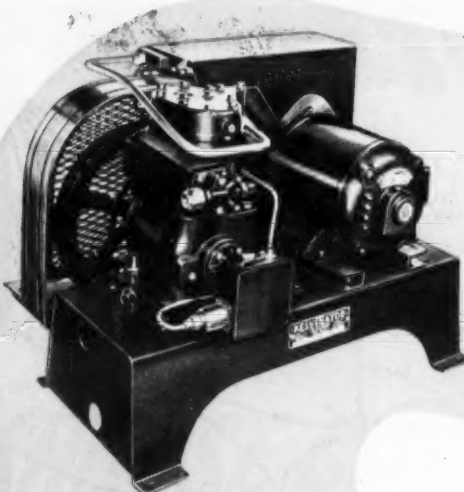
After the serial numbers were checked, all contestants were invited to come to the store for the prize awards. The store awarded 25 prizes and also had refreshments for the evening. Prizes included electrical appliances, radios, home gadgets, and money off on certain appliances. Many impulse sales were made that evening.

"One of the most unusual promotions that we have had," Warren Wittenmeyer pointed out, "was our deer contest last fall which we are going to duplicate this year."

The store advertised that for every deer tail brought into the store, the hunter's name would be placed on a ticket that would be deposited in a drawing box. The tails were placed in a freezer.

At the end of deer season, cards were sent out to hunters inviting their families to attend the drawing. A youngster pulled 10 lucky tickets from the box and the first winner received a freezer. Others were given lesser prizes.

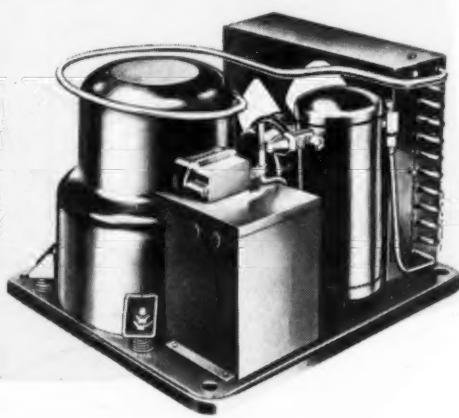
"We wanted to interest sportsmen and their families in freezers," claimed Wittenmeyer, "because they represent a splendid freezer prospect class. It paid off because, of the 75 deer tail entries, we later sold 18 of them. This is a splendid percentage."



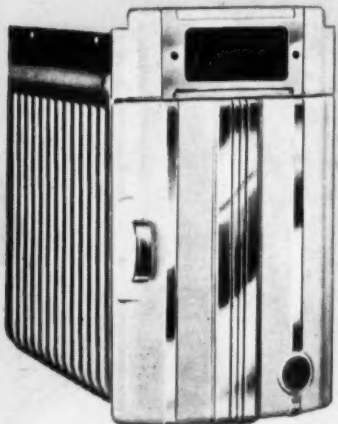
Kelvinator Open Type Condensing
 Units (1/4 H. P. to 1 H. P.)



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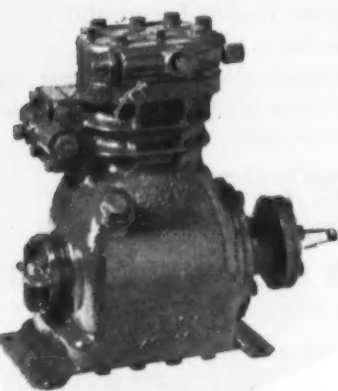
Kelvinator Sealed Type Condensing
 Units (1/4 H. P. to 1/2 H. P.)



Kelvinator Stainless Steel
 Evaporators



Kelvinator
 Silica Gel Driers



Kelvinator Compressors
 (1/6 H. P. to 5 H. P.)

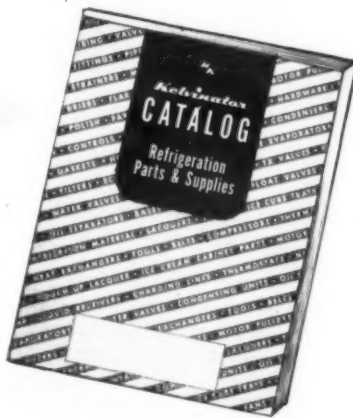
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Economics (Cont.)

TONNAGE ESTIMATE

At times the air conditioning engineer is called upon to give quickly, tonnage estimate on spaces to be air conditioned.

Table 1 shows figures for quick tonnage estimate for various estab-

lishments and for various locations. These figures have been taken from actual experience from typical systems, and may or may not fit a person's particular problem, but will be close enough for an estimate. For true values the load must be calculated as described in the section "Cooling Load."

The table is based on number of square feet per ton of refrigeration in all cases, except theaters where number of seats per ton is used.

This table also tends to guide the engineer to what the correct load should be, when actually calculated.

EXAMPLE NO. 1

A neighborhood theater has 800 seats. The outside design conditions are 95° F. d.b. and 75° F. w.b. temperature.

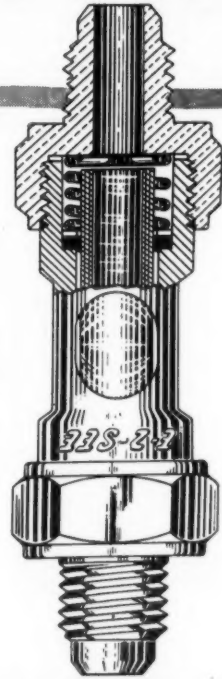
a. What are the estimated tons of refrigeration?

b. What are the estimated tons for 100° F. outside conditions?



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1455 E. NINE MILE ROAD HAZEL PARK, MICH.

Enthusiastic acceptance everywhere for leak-proof E-Z-SEE Liquid Indicators!



Yes, E-Z-SEE has at last provided the 100% answer to the industry's demands for a foolproof Liquid Indicator. And now, it is also the industry's most convenient to use—with these three different connection availabilities (all in sizes 1/4", 3/8", and 1/2").



Sweat connections extended to permit soft or silver soldering without disassembling



Male flare both ends for line installation



One end female flare for direct attachment to drier

CHECK THESE ADVANTAGES

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Literature and Prices on Request

REMCO

INCORPORATED

ZELIENOPLE, PENNSYLVANIA

Table 1—"Guesstimates" for Refrigeration Load Requirements

	SPACE LOCATION							
	Basement		First Floor and Above					
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Based on: Outside conditions 95° F. dry bulb & 75° F. wet bulb Inside conditions 80° F. dry bulb & 50% relative hum. 10'0" high ceilings.	Entirely below sidewalk. If basement has windows use Col. 2	No glass exposure and no roof exposure	No glass exposure but with roof exposure	With glass exposure on north side only and no wall exposed to sunshine	With glass exposure on north side only but with roof exposure	With glass exposure on south, east, or west side, or combination of sides, with Venetian blinds no roof exposure	With glass exposure on south, east, or west side, or combination of sides, with Venetian blinds but with roof exposure	Seats per ton
Square Feet of Floor Space per Ton of Refrigeration								
1. Theater (neighborhood) . . . . .	....	....	....	....	....	....	....	16
2. Theater (downtown) . . . . .	....	....	....	....	....	....	....	15
3. Restaurants, Coffee Shops (coffee urns in air cond. space)	310	270	220	260	215	230	200	10
4. Cafeterias	250	210	190	215	185	190	170	8
5. Restaurants, Coffee Shops, Hotel Dining Rooms (all cooking and coffee urns in kitchen).....	350	310	260	300	255	270	240	12
6. Drugstores (lunch counter type).	260	220	170	210	165	180	150	....
7. Drugstores (with no lunch counter)	350	310	260	300	255	270	250	....
8. Single Offices	430	390	300	380	300	310	250	....
Office Bldg. (top floor only).....	....	....	320	....	310	....	260	....
Office Bldg. (other than top floor)	....	420	....	400	....	350	....	....
Office Bldg. (basement floor only)	460	....	....	....	....	....	....	....
9. Office Bldg. (multi-story)								
Two stories high, only . . . . .	....	....	360	....	350	....	325	....
Three stories high, only.....	....	....	500	....	450	....	400	....
Four stories high and higher....	....	....	550	....	500	....	450	....
10. General Wearing Apparel Store..	420	380	330	350	300	320	270	....
11. Barber Shops	340	300	250	300	260	280	230	1½ chairs
12. Beauty Shops	300	260	210	260	220	240	190	....
13. Banks	440	400	350	370	320	340	290	....
14. Small Department Stores	350	290	240	260	210	230	180	....
For Use above figures for ceiling heights 10 ft. and less. For 14-ft. high ceilings, deduct 15% from the above figures. For 18-ft. high ceilings, deduct 29% from the above figures. For outside conditions of 100° F. dry bulb and 75° F. wet bulb deduct 10% from the above figures.								

Use above figures for ceiling heights 10 ft. and less. For 12-ft. high ceilings, deduct 10% from the above figures. For 14-ft. high ceilings, deduct 15% from the above figures. For 16-ft. high ceilings, deduct 20% from the above figures. For 18-ft. high ceilings, deduct 25% from the above figures. For 20-ft. high ceilings, deduct 30% from the above figures. For outside conditions of 100° F. dry bulb and 75° F. wet bulb deduct 10% from the above figures.

From Table 1 we find that it requires 16 seats for 1 ton.

a. Therefore: $\frac{800}{16} = 50$ tons.
b. Therefore: $\frac{800}{16 \times (100\% - 10\%)} = 55$ tons.
14.4

EXAMPLE NO. 2

Given the first floor of a small department store, 100 ft. long, 40 ft. wide, and 10-ft. high ceiling, and with roof directly above. The space has glass exposure on east and west sides, and the outside conditions are 95° F. d.b. and 75° F. w.b.

a. What are the estimated tons of refrigeration?

b. What are the estimated tons if the ceiling was 15 ft. high?

a. Referring to Table 1, Col. 7, we find that it will require 180 sq. ft. of floor space for 1 ton.

Therefore: $\frac{100 \times 40}{180} = 22$ tons.

b. Referring to footnote below Table 1 we find that for a 15-ft. high ceiling, the 180 sq. ft. should be reduced 17.5%, which becomes 150 sq. ft.

Therefore: $\frac{100 \times 40}{150} = 27$ tons.

(To Be Continued)

Dr. Turk Joins Connor Corp.

NEW YORK CITY—Dr. Amos Turk, formerly of the chemistry department, City College of New York, has been appointed Director of Research and Development of the W. B. Connor Engineering Corp., manufacturer of activated carbon air purification equipment.

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BEST QUALITY DUST-FREE SILICA

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Always fresh, highest quality Silica Gel for better drying—will not powder. Leakproof. Copper tubing—brass fittings—felt filter, 1" & 2" O.D. LESS COSTLY TO REPLACE THAN REFILL

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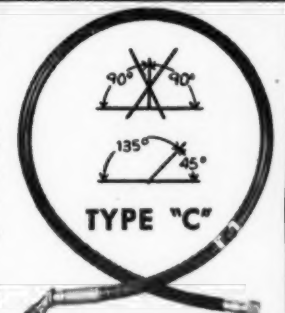
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SINCE 1906

YOU have been asking for a packaged room conditioner that will sell and stay sold. Here it is, and with it your opportunity to cash in on an early season demand.

What's New

Automatic Ice Maker Produces 2,000 lbs. In 24 Hours; Larger Models Will Be Added to 'Icette' Line



LOS ANGELES—A new ice-making machine that automatically will produce 1,800 to 2,000 lbs. of cubed ice in a continuous 24-hour operation has been manufactured by Pace Bros., 2736 Whittier Blvd. here.

The machine is also produced in other models that will make 3,000 or 4,000 lbs. of ice daily. The cubes manufactured, called "Icettes," measure 1½ in. high by 1½ in. in diameter.

The 2,000-lb. unit is 10 ft. long, 4½ ft. wide, and requires an 8½-ft. ceiling. The open-type 3-hp. refrigeration unit will require an extra 4 by 3-ft. space. It is water cooled

and of low-pressure design, according to the manufacturer. It controls the brine temperature.

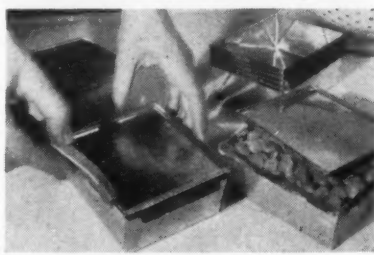
The evaporator unit is of the plate type. The freezing water is agitated by air supplied from a small air compressor. The brine tank is partitioned with a horizontal agitator for maximum heat transfer.

To make the Icettes, the freezing tubes are filled with water and submerged in the brine. After about 55 minutes, the tube-grid is automatically raised to the brine drain position and then to the thawing position.

At this point warm water is sprayed on the tubes to bring the ice down to the sawing operation. The ice is then sawed and conveyed outside the unit where it is carried direct to the storage bins.

The manufacturer said that the Icettes can be frozen solid or finished with a small hole in the center. They can be made clear or colored.

The unit is automatically controlled by low-voltage devices enclosed in a separate control box.



Frozen Food Packages Available In Aluminum

RICHMOND, Va.—An all-aluminum container called the Reynolds Pak, for packaging foods to be frozen in home freezers and at locker plants, is now being produced by Reynolds Metals Co., here.

Fruits; vegetables; pre-cooked mixtures such as stews, desserts; meats such as hamburger, sausage, chicken livers; purees; and an extremely wide variety of foods can be packaged for freezing in the Reynolds Pak, the company said. It is or shortly will be available nationally at stores selling supplies for home freezing, and at locker plants.

The Reynolds Pak is a light-weight aluminum tray with a cover that may be closed tightly by a manual device. It comes in both pint and quart sizes and is packaged, 25 to a carton, complete with lids and closing device.

Pint sizes sell for \$1.56 a carton, and quarts, \$2.67. An introductory package of seven pint Reynolds Paks sells for 50 cents.

Reynolds Paks are tapered from base to top for nesting during the pre-use period, and covers are recessed to permit stacking after fill-

ing and during storage in freezers. The Reynolds Pak has been under development for the past several years, during which time it has been thoroughly tested in Reynolds Research Laboratories.

The Reynolds Pak is made from a single sheet of light-weight pure aluminum and will not absorb moisture or fats. Non-toxic, it cannot give an odor or taste to foods and prevents the absorption of extraneous odors, the manufacturer claimed.

It will withstand wide extremes in temperature. Hot foods may be filled directly into the Reynolds Pak, then immediately chilled or frozen.

Reynolds Pak may be marked with a china marking pencil or any blunt-pointed pencil, or labelled if so desired. To open, the tab at one end is lifted and the cover removed.

The Reynolds Pak is claimed to be the only container in which foods can be both frozen and cooked. Frozen vegetables may be cooked in the Reynolds Pak by placing in a small amount of water and cooking either in a covered saucepan or pressure cooker. If other foods are being baked, the Reynolds Pak may be opened, butter or margarine and salt added, the cover replaced and the vegetable cooked in the oven.

Although not recommended by the Reynolds Company for re-use for freezing, the Reynolds Pak if handled carefully may be used several times.



Taylor Clothes Dryer Has Germicidal Lamp

ALLIANCE, Ohio—The Taylor "Summer Breeze" clothes dryer utilizing radiant-type heating and forced air circulation for drying and a germicidal ultra-violet lamp, is being introduced to retail at \$129.95 by the Taylor Corp. here.

The Taylor dryer designed to permit 500 c.f.m. of air to pass over clothes hung on simple but neat racks. The heating units are two Calrod units of 600 watts each which heat the clothes by radiant heat, which brings the moisture to the surface of the clothes where the air passing over the surface can more quickly absorb this moisture.

Fans used are of the squirrel-cage type. The germicidal ultra-violet lamp is designed to give the same effect as if the clothes were hung out in the sunshine.

The cabinet is composed of a normal kitchen cabinet 24 in. deep, 36 in. high, and 30 in. wide, altered to meet the needs of a dryer.

Other features include easy-slide drying rack, work-height surface, safety device to keep the current off when doors are open, timing switch, heater switch, and indicator light.

Capillary Tube Combined With Wagner Strainer

LONG ISLAND CITY, N. Y.—"Strain-O-Kap" a newly-designed capillary tube and strainer combination is now being released to distributors by the Wagner Tool & Supply Corp. at 1300 43rd St. here. It replaces a high side float, a low side float, and also the original capillary tube, the company claims.

Strain-O-Kap is a scientifically engineered strainer and capillary tube combination designed to operate equally as well on all open and sealed units from ¼-hp. to ½-hp. inclusive—using SO₂, methyl chloride, or "Freon-12" refrigerants.

No cutting or adjustments are necessary. Strain-O-Kap can be easily installed by following a few simple instructions supplied with each unit. There is no guesswork regarding the proper length of capillary tube to be used.

The strainer is all brass with a ¼-in. male flare connection. Contained therein are three monel screens (40-70-100 mesh) spaced in such a manner that it sifts and strains the refrigerant in a progressive action, at the same time permitting a gradual pressure drop desirable for capillary systems.

Soldered to the strainer is a hard tempered, seamless, copper restrictor tube, precision drawn and individually tested for proper pressure drop.

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Air Conditioning and Refrigeration application manuals, service manuals, specification sheets, catalogs and other technical literature written for manufacturers, distributors, jobbers and advertising agencies.

Over twenty years practical experience in this work.

Thermo-Dyne Co.

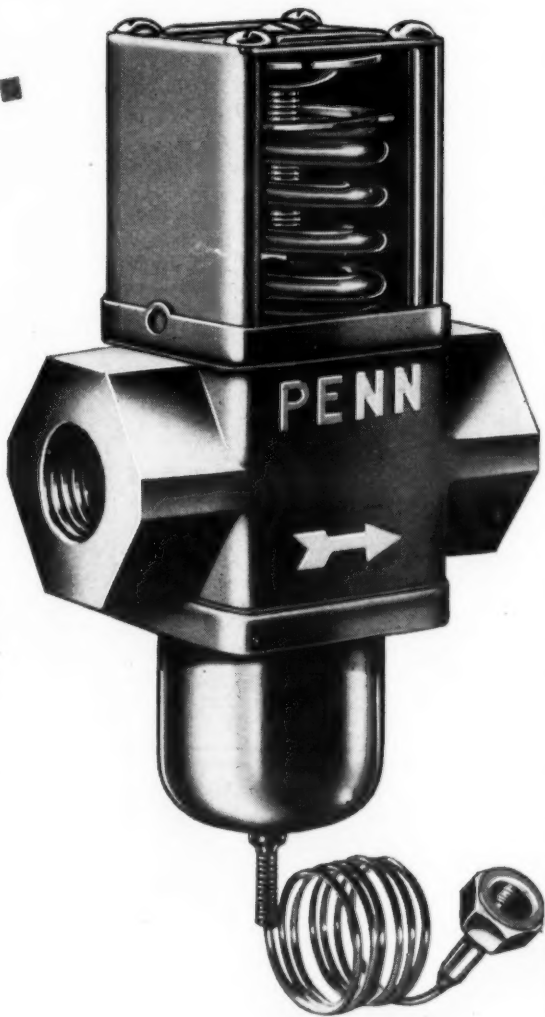
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**EASY INSTALLATION,
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SWITCH TO PENN Water Valves

It's the simplified design of Penn 246 Water Valves which contributes so much to their dependability and long life. Water is kept away from the range spring and sliding parts. Protected from sedimentation... corrosion... and rust, which cause premature wear and failure, these better valves assure dependable performance through the years.

Penn offers a complete line of water valves for all types of refrigerants. Sizes from ⅜" to 2½" I.P.T. Flanged and threaded models. Brass bodies are standard on ⅜", ½" and ¾" commercial types. For dependable service which means customer satisfaction switch to Penn Series 246 Water Valves. See your jobber or write now for full information. Penn Electric Switch Co., Goshen, Ind. Export Division: 13 East 40th St., New York 16. In Canada: Penn Controls Ltd., Toronto, Ont.

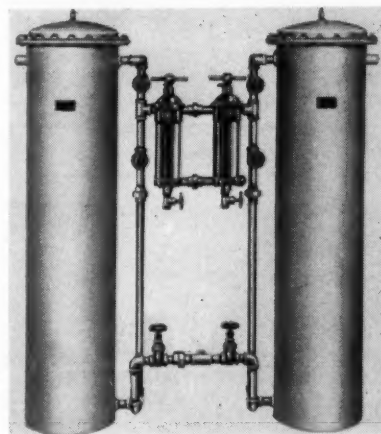


PENN

AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

Water Tastes Removed By Filtrine Rectifier



BROOKLYN—A rectifier-dechlorinator that removes all organic tastes and odors from water to make it palatable has been introduced by the Filtrine Mfg. Co. here.

The unit is intended for large installations, such as hotels, food processing plants, soda fountain, and swimming pools. Units can be installed singly or in multiple to meet capacity requirements and can be operated with full dependability at 75 lbs. water pressure, the company said.

The rectifiers were designed primarily for use with Filtrine filters, the company declared. They are of all-steel constructions, welded design, and have the inner surface lined with Filtrine corrosion-resistant enamel.

The unit is shipped complete with a specially prepared chloricide charge. When properly installed, it requires no further service for more than a year, according to the manufacturer.

A removable head provides for easy renewal of the charge when required. The rectifier measures 18 by 18 by 66 in. and weighs 550 lbs.

For full information and literature, write the manufacturer at Dept. F., 53 Lexington Ave., Brooklyn 5.

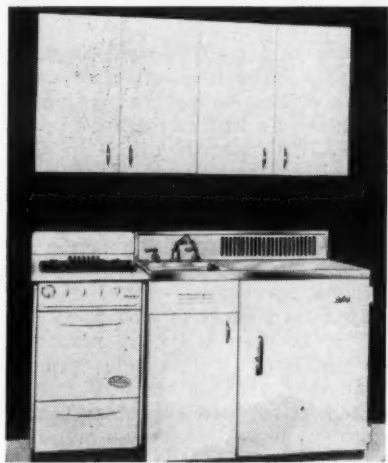
'Watchman' Controls Lights Automatically

MIDDLETOWN, Conn.—An electronic "Light Watchman" for the control of home and store lights has been announced by Frank A. Rudolph, president of Ripley Co., Inc. here.

Designed to turn night lights on and off in home or store according to the foot candle value of daylight, it is entirely automatic in its operation. Darkness turns the light on, daylight turns it off automatically. When used in stores it will turn on lights in show windows, over safes, signs, and turn them off in the morning.

Encased in steel housing, it measures 5 by 4 by 3½ in. and weighs 2 lbs. It operates on 105-120 volts, 50/60 cycles, a.c. It carries 300-watt, 110-volt load.

What's New (Con't)



Package Kitchen Shown by Moss-Atlas Is 5 Ft. Long

BROOKLYN—A packaged kitchenette that includes refrigerator, range, sink, and cupboards is now being offered by the Moss-Atlas Corp., 244 Herkimer St., Brooklyn 16.

Over-all, the "Efficiency 60 Kitchenette" is 60 in. long, 24½ in. deep, and 84 in. high. It is intended for use in hotels, apartment houses, and resorts.

The range is on the left and occupies 19½ in. of the unit's length. It has four surface cooking units, either gas or electric, an oven and a broiler. It is finished in white vitreous enamel on heavy gauge steel.

The sink, in the center, has a Formica counter top bound with stainless steel edging. The stainless steel bowl measures 14 by 18 in. and is fitted with a chrome plated (over brass) combination swinging hot and cold water faucet. Below the sink is a storage cabinet 16½ in. wide.

The refrigerator on the right is a Paley counter height model in either 5 or 3½-cu. ft. capacity, as desired. It is powered by a Tecumseh hermetically sealed unit.

Two overhead wall cabinets measure 30 by 30 by 13 in. each.

Remco Makes Drier To Cut Down Leakage, Clogging

ZELIENOPLE, Pa.—Two innovations—spun-end design and the use of molded Ducal Drierite—in both its "Cross-Flo" and standard-duty driers have been announced for Remco, Inc. by K. M. Newcum, president.

Described in the company's Bulletin R4, the spun-end process is employed under Wolverine Tube patents and is claimed to improve drier body construction through the elimination of joints.

With this design sweat or soldered connections are integral with the body, which "represents a great



improvement since the fewer number of joints, the fewer number of leaks," Remco says.

Numerous advantages are claimed by Remco for using Ducal Drierite in the molded form. Dusting, powdering, and the resultant clogging and pressure drop are eliminated, according to Remco, leaving the entire surface available for filtering and drying.

Because this dessicant is a chemical drying agent, driers using it can be located in either hot locations or cold, Remco states. It will remove and retain moisture from refrigerants at temperatures as high as 150° F., but is likewise claimed to work satisfactorily in the low side, suction line or other cold locations. Remco guarantees the drying agent will remove moisture up to 20% of its weight.

The latest Remco bulletin lists all sizes of its spun-end driers for both DuCal Drierite and Silica Gel in Cross-Flo and standard duty types as well as accumulators with spun ends and its E-Z-See liquid indicators.



Midwest Introduces New Kit for Planning Kitchens

GALESBURG, Ill.—Midwest Mfg. Co. here, builder of "Kitchen-Kraft" steel kitchens, has announced availability of a new "Plan-a-Kitchen Kit" which, it says, permits complete scale kitchens to be put together with a pencil.

The kit consists of only five elements: a pad of ruled planning sheets scaled one-half inch to the foot, two plastic "plan-a-rules"—one for sink and floor cabinets and one for wall and broom cabinets, a triangular draftsman's scale, and a pencil.

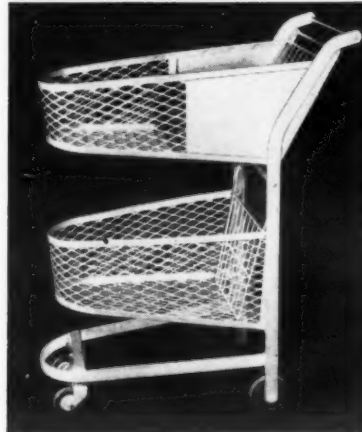
"The 'plan-a-rules' are marked for correct scale sizes of all cabinets, plus fillers, corner cabinets, and every individual piece necessary to produce a complete kitchen floor plan," the company explained.

"By placing the transparent 'plan-a-rules' over the floor plan, cabinets can be sketched in, in proper loca-

tion. The planning sheets are printed on draftsman's vellum paper that is easily erased and, when completed, blueprints can be made from the vellum in any quantity."

The kit, which is said to eliminate the need for expensive model kitchens in wood and plastics, is priced at \$5.

Food Carts Telescope To Save Space In Supermarket



DETROIT—Designed to save space for self-serve food stores and supermarkets, where space is at a premium, a new "telescope" market cart is being made by the Campbell-French Co., 13116 Fenkell here.

The cart is 18 in. wide, which size is claimed to permit greater maneuverability, and is supplied in baked enamel, electroplate, or chrome finish.

It is possible to get nine carts to a yard, the manufacturer says, and the mesh in the basket is small enough so that nothing will fall.

FREE—Your Copy of the 1949

AUTOMATIC CATALOG

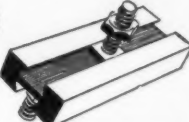
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Motor Failure quickly restored, with that spare motor and a set of motor adapters to make it fit.



1/8 to 1/2 hp.—101-D
1/2 to 3/4 hp.—102-C
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CLEANABLE DOUBLE-TUBE COUNTER-FLOW WATER-COOLED CONDENSERS

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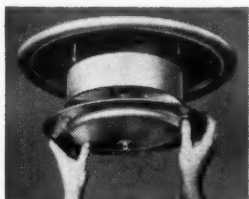
Halstead & Mitchell
BESSEMER BLDG.
PITTSBURGH 22, PA.

Speed installation with Kno-Draft the completely adjustable air diffusers

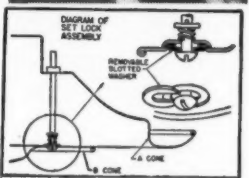
Helps get job OK's faster, too!

Kno-Draft's adjustment features not only help you get off the job faster—with a well satisfied OK—but they eliminate the tough job of figuring everything about the air movement in advance. If people or partitions are relocated while the job is in progress, you can adjust to the changes in a jiffy. A screwdriver adjusts the three suspension bolts for any angle of air discharge from horizontal to vertical (Fig. 3). Balancing is fast and easy. The single annular air stream permits immediate and accurate velometer reading (Fig. 4). A twist of the wrist regulates the air volume instantly (Fig. 5).

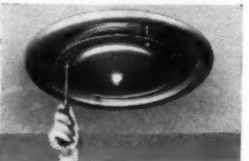
Kno-Draft self-contained inner unit (Fig. 1) and the Type HD set-lock assembly (Fig. 2) cut installation time in half, according to contractors who have used them for the first time. They're especially handy where ceilings already exist. Then it's a simple job to remove the inner assembly, attach the outer cone to collar or duct and reassemble the diffuser. The outer cone slips over the suspension bolts and is secured by a slotted washer which keeps the spring-loaded catch in compression (Fig. 2).



(Fig. 1) Self-contained inner unit



(Fig. 2) Type HD set-lock assembly



(Fig. 3) Air Direction Adjustment



(Fig. 4) Balancing



(Fig. 5) Air Volume Adjustment



Send for FREE handbook on air diffusion. It contains up-to-date data that simplifies the selection and application of Kno-Draft Diffusers. It shows how you can get top efficiency from an air conditioning system. Please write Department A-30.

W. B. CONNOR ENGINEERING CORP.

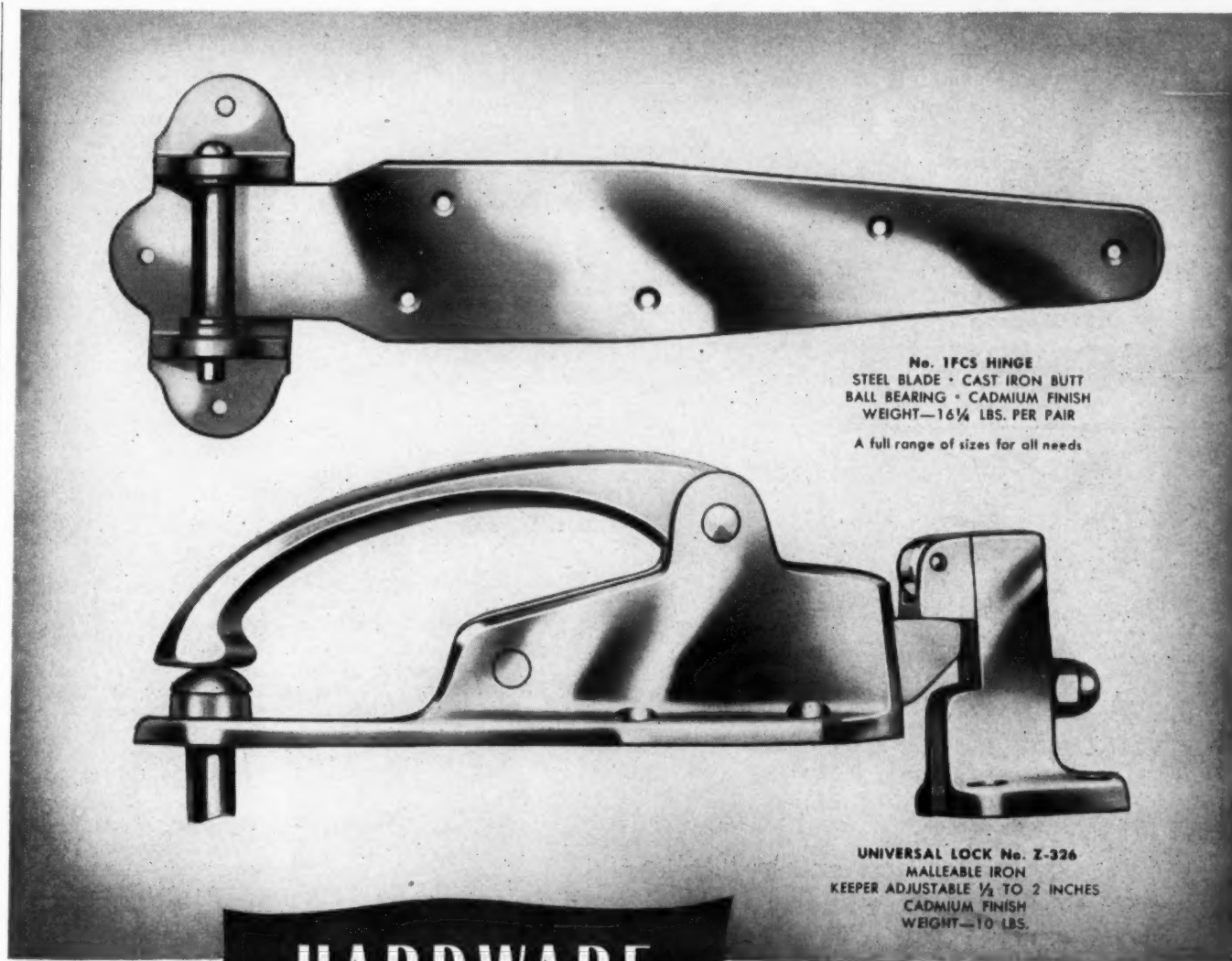
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Sturdy hardware—

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and to last a long time.

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MANUFACTURING DIVISION

ROCKWELL MANUFACTURING COMPANY

FREEPORT, ILLINOIS





'BLAIR HOUSE' SLEUTH IS REALISTIC CHARACTER

United States District Court
Eastern District of Michigan
Detroit 2, Mich.

Editor:

Received so many books at Christmas time that I didn't get a chance to pick up "The Mysteries of Blair House" by Eastman until last week. It is a very good "whodunit." Usually I don't like those detectives who seem to know everything about everything, who are great chemists, great scientists, great lawyers, great doctors, businessmen, metallurgists, and everything else rolled into one.

I like to think of the detective as just the average guy with a lot of experience. However, while Eastman's Sherlock Holmes was no dumb-bell he was very plausible. He had

some good reason for everything as a result of deduction and it all looked easy and simple.

FRANK A. PICARD
District Judge

STORY CARRIES 'FREEDOM OF C'S' LITTLE TOO FAR

York Corp.
York, Pa.

Editor:

We believe in the freedom of the "C's" but not to the extent that the middle "C" should be left out of "Antarctica," not once but twice. Otherwise your story on the Brookfield Zoo Installation on page 7 of your June 20 issue is a honey.

W. C. MOORE

WHO SUPPLIES MONTHLY APPLIANCE OUTPUT DATA?

Soreng Mfg. Corp.
1901-09 Clybourn Ave.
Chicago 12

Editor:

The writer wishes to express to you his feeling in regard to your publication in that it is a very live and up-to-date one and gives very good information on many subjects. I have often wondered whether it could not appropriately be called "Air Conditioning, Refrigeration and Appliance News" and include, as it now does, items of interest regarding electric ranges and other types of appliances which are made in considerable quantities.

I am offering this suggestion for the reason that it is only within the last year that I have begun looking for items about other appliances and find quite a few of them in your publication. I had not formerly thought of it much as a source of information.

What prompts me to write is to ask if there is any source where there is available weekly or monthly

production figures on the various appliances made by different manufacturers. This information will be helpful as a market survey in advance of going into new products.

If you can give us any clue as to where these figures might be obtained, it will be much appreciated.

E. M. SORENG

BUSINESSMEN APPRECIATE COMPLETE INDUSTRY NEWS

Pacific Scientific Co.
San Francisco, Calif.

Editor:

Your journal is so much a part of the weekly activities at all three of our offices that we would feel quite at a loss if, for some reason, it didn't arrive on schedule. There is no other publication that gives us such a complete picture of what is going on in the industry.

I have long wanted to write you of my appreciation of your editorials—my very sincere appreciation of your presentation of our way of life in such readable form. The fact that your journal has such a wide circulation throughout the industry means that your editorials will reach many small businessmen—the soundest group of our citizens—who may never have had the time or opportunity to enable them to understand the essentials of our economic and political life.

Frankly, I must confess that I always read your "Inside Dope" column first and often return to it for a second perusal. Each time I do so I hope for its wider distribution. And if I don't always agree with the editor's every word, I can still agree heartily with his general thesis.

D. HANSON GRUBB

WORLD PROSPERITY WILL DEPEND ON SALES POWER

Los Angeles 22, California

Editor:

I am reading "It's A Great Life" with great interest and I believe you are rendering the entire nation a great service with it. "The key to prosperity is the recruiting of more good salesmen" and prosperity benefits all and everyone.

Prosperity, however, to be good must be widespread. Our national velvet always has been obtained through exportation; and at-home business furnishes the bread and butter only. Exporting is only possible to peoples who are well up. The broke are no prospects, i. e., other nations also must recruit more good salesmen. Reading "It's A Great Life" will make them do it.

SIGFRIED RUPPRIGHT
Professional Engineer and Consultant

GRADUATES SHOULD READ 'NEW UNDER SUN' STORY

Durez Plastics & Chemicals, Inc.
North Tonawanda, N. Y.

Editor:

Your article, "There Is Much That's New Under the Sun" was all to the good.

It should have been read to every graduate of high school and college for it has everything and is sufficiently short that its message would be retained.

I want to use it in our own plant publication with proper credit, of course. Because I am familiar with your writing, I think you will enjoy an effort of my own which has proved sufficiently popular to go through a second printing.

H. H. SPENCER,
Advertising Manager

OOPS! RAILROAD RUNNING IN UTAH ISN'T SANTA FE

Servel, Inc.
P. O. Box 561
Wickenburg, Ariz.

Editor:

From this southwestern area you probably have received many "fan" letters calling to your attention that the Santa Fe Railway doesn't operate in UTAH as described in your "Story of the Week" in "Inside Dope" column of July 11th issue. The carrier could have been the Union Pacific Railroad. However, that quantity shoe sale would have been appreciated by some Arizona merchant.

Your periodical is extremely helpful in keeping me conversant with the industry trends and progress. While we are not exactly "off the beaten path" our opportunities for communion with persons helping to make history in the trade are, to say the least, infrequent.

Particularly you are to be congratulated on the timely editorials. And your thoughtful concise reasoning of national economic problems and the agonizing dilemma facing American businesses of today harassed by the so-called FAIR DEALERS deserves accolades.

GEORGE L. ROACH

U. S. NEEDS ALARM TO AVERT COMING DISASTER

Lessard Home Appliances &
Electrical Equipment
Santa Rosa, Calif.

Editor:

We know of no writer who is so courageous and so awake to what is happening to this country.

You make us feel that we should also do what we can do to save this country from imminent disaster.

E. H. LESSARD,

Here's what ELECTRICAL MERCHANDISING says about "The Marshal's Baton"...

"The Marshal's Baton"
A comprehensive knowledge of merchandising, combined with a refreshing approach, makes George Taubeneck's book on specialty sales management well worthwhile

SHOOTING the breeze with George Taubeneck can be a pretty exhilarating experience. Strictly speaking, it takes two people to carry on a dialogue, but the publisher-editor of *Air Conditioning and Refrigeration News* manages somehow to impart a give-and-take, conversational atmosphere to his writing. In "The Marshal's Baton" (Conjure House, Detroit, \$5) you'll find a discussion of specialty sales management which is about as informal as it could be. It's as if Mr. Taubeneck were anticipating argument all along the line, and throwing out his rebuttal off the cuff. And it's made all the more refreshing by the humor interspersed throughout. A sizable booklet could be compiled just by lifting from the text all the illustrative anecdotes (along with some not so illustrative, as the author is the first to admit).

Napoleon Said It

The book's title is derived from a remark of Napoleon's that "Every private carries a marshal's baton in his knapsack." It is dedicated to the private come marshals in the front office. What it adds up to is a survey, in general terms, of everything a specialty sales manager ought to know. A tall order; no wonder it takes 570 pages to do the job.

It's All There

Those 570 pages make fast reading. Under headings like "It's A Great Pro-

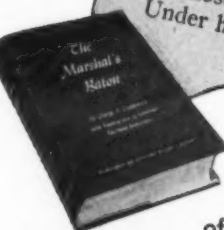
fession," "Price-Making Is Like Walking a High Wire—And How!" "The Distributors? God Bless 'Em!" and 19 others, Mr. Taubeneck runs through the whole merchandising field in a style which is breezy, but not so breezy that it obscures a wealth of information and advice. He knows his stuff and he holds nothing back. But—and it's a big "but"—he insists, again and again, that there are a million essentials that a good specialty sales manager can't be told. He can learn them only through doing his job, since that job involves the always variable human equation.

High Brass Helps Out

To bolster his statements, Mr. Taubeneck quotes from a number of eminent sales executives, many of whom contributed their comments expressly for this book. Their remarks deal not only with specific, practical matters, but with business ethics and philosophy, and they deserve the permanent form which the book gives them.

Wide Application

Because the main concern of "The Marshal's Baton" is helping to coordinate manufacturing and production with sales on the distributor, dealer and consumer levels, it holds much of interest to almost anyone involved in the appliance field comes in for more than its share of scrutiny. There is little point in trying to cover too much in it. Investigate it for yourself. You won't be sorry.



And this is just a small sample of critical comment which has hailed THE MARSHAL'S BATON as a significant contribution to the science of sales management. It is written in the light of merchandising problems today and tomorrow. It's a brilliant new source of knowledge and wisdom which can be of tremendous importance to you.

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Air Cooling Abroad

Overseas Contractor Must Meet Local Problems of Conserving, Treating Condensing Water In Order To Sell Installation

DETROIT—"One of the chief 'headaches' of the refrigeration or air conditioning industry abroad is adequate condensing water," contends Ken L. Crapeau, Airtemp sales manager of Chrysler Corp.'s Export Division.

"Some places do not have adequate supply. Other areas have adequate supply but inadequate disposal facilities. In still other areas the supply is not constant. In fact, in Havana, Cuba, for example, there are several hours each day when there is not enough water pressure to flush a toilet, let alone cool a condenser.

"Some cities abroad have tried to combat an increasing shortage of water by raising water rates. Colombia, Mexico, Argentina, Curacao, and many others, have now reached a point where direct usage-and-disposal of city water for air conditioning and refrigeration condensers is almost prohibitive," Crapeau says.

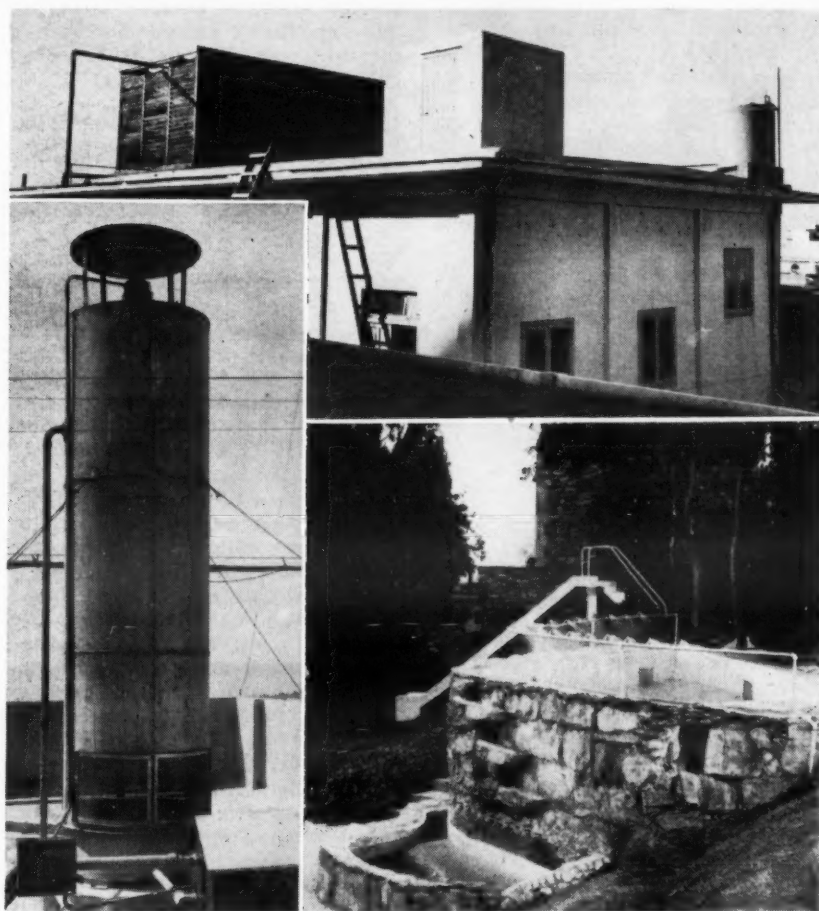
"Throughout the tropical and semi-tropical areas air conditioning for comfort and also for processing is rapidly gaining popularity. As the installations in any specific locality increase, the problems of condenser water are magnified. Some cities are now refusing to permit direct-connection of cooling equipment to the water mains.

"Mexicali, Mexico is one of the hardest hit by the water shortage. This city has had a phenomenal growth and at the same time an overwhelming desire for the finer things of life, including air conditioning. With the relatively high power costs it is imperative that towers be used to conserve condensing water or the operation costs are completely out of line," he asserted.

"Monterrey is another Mexican city that is getting extremely 'air conditioning' minded. Certain seasons of the year in Monterrey are very uncomfortable because of the temperature and a high relative humidity. Successful merchandising of cooling equipment demands the use of water saving devices. Some very clever things have been done such as swimming pools that serve a dual purpose of pool and cooling-pond.

"A great deal of missionary work has been necessary to convince, not only the customers but the distributors as well, of the many advantages of the use of evaporative condensers and cooling towers," he explained.

"The additional first cost of the installation has tempted many inexperienced salesmen to sell installa-



TOP: In Havana, Cuba, cooling towers alone cannot compete with water shortages encountered in some sections for several hours a day. Note small concrete tank which supplies make-up in such emergencies. LEFT: In Argentina this induced draft cooling tower is used. All steel, it can be assembled on job. BOTTOM RIGHT: In Monterrey, Mexico, this pool serves both for swimming and as a reservoir for water used in the spray system which dissipates heat from the home's air conditioning units.

tions without water-conserving equipment. In the long run, any organization deriving its livelihood from selling must depend on 'repeat sales' or sales made by satisfied users. Economy of operation is a redeeming feature of every satisfactory installation. Regardless of how well it may function, a user is never happy with a job that costs too much to run. He forgets the comfort he has enjoyed when he gets a \$200 water bill at the end of the month.

"The refrigeration and air conditioning industry, as a whole," emphasized Crapeau, "must learn these lessons in export: Sell compressor and condensing units large enough to do the job; provide adequate ducts for air distribution; and last, but most important, provide for conser-

vation of condensing water.

"The conservation of condensing water produces another major problem, i.e., control of algae. This bothersome formation is the natural growth of minute organisms in warm, or rather tepid water. Cooling towers with relatively 'tight' systems provide natural growing conditions unless the feed-water is treated to prevent it," he also pointed out.

"There are now several brands of 'anti-algae' treatment available on the market at competitive prices. Most of these are quite effective if used according to directions. Some of these preparations are so highly concentrated, however, that it is somewhat difficult to use them economically, and without being wasteful. To obtain the best results, the treatment should be in the prescribed quantities and at regular intervals. To permit a heavy growth, or even a moderate growth, between treatments defeats the purpose considerably and requires higher concentrations when used.

"Scale in cooling towers or evaporative condensers is a natural function of the percentage of hardness in the available make-up water. Some areas have water supplies with such low calcium content that treatment for hardness is not necessary. Such conditions are the exceptions, however, rather than the rule. In most areas the scale accumulation is severe enough to materially effect the efficiency of the system unless it is prevented.

"Several types of water treatment are now available at prices that are far below the cost of removing the encrustation once it has formed. This material is available in liquid, pellet, or brick form."

Checking for leaks in the radiant heating system installed in the ceiling of W. E. Herrmann's new Schenectady home. The pickup of the G-E type H leak detector is being passed through the air surrounding the copper tubing of the system by J. S. Hickey (left). Herrmann is watching the dial of the electronic unit atop the stepladder to see if any halogen is present in the air, indicating a leak in the tubing.



Use of G-E Detector Spots Piping Leaks In Home Owner's Radiant Heating System

SCHENECTADY, N. Y.—To insure a leakproof condition in the radiant-heating system installed in his new home here, William E. Herrmann, engineer in General Electric Special Products Div., tested the system with a G-E Type H leak detector.

This electronic instrument is extremely sensitive to halogens—chlorine, fluorine, bromine, and iodine—and can detect leaks of these gases from openings so small as to release only one ounce a century.

To make the test, Herrmann first introduced a gaseous halogen compound ("Freon") into the 1,800 ft. of

½-in. copper tubing installed in the unfinished ceiling of his house. Then John S. Hickey, one of the men who participated in the development of the detector, passed the tip of the instrument's pistol-shaped pickup through the air surrounding the tubing. If any trace of the halogen was present, the leak detector indicated the fact on its dial.

According to Herrmann, about 100 joints in the tubing were checked in this manner in less than two hours. Three leaks, undetected by two different previous tests, were spotted immediately.

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We're proud to bring you for the first time in refrigeration history an exclusive wholesaler sealed unit with all the headaches removed. For example, take field servicing. PARMETIC's three thoroughly field-tested Models, PM-1 (1/6 H.P.), PM-2 (1/4 H.P.) and PM-3 (1/3 H.P.) high and low temperature, can be quickly checked, disassembled and repaired on location without replacing the entire unit. Many other exclusive features, too, make PARMETIC the first sealed unit ideally suited for wholesaler distribution since it gives customers the kind of trouble-free performance so typical with the PAR line.

IF YOU'RE A REFRIGERATION EQUIPMENT WHOLESALER, GET IN TOUCH WITH US AT ONCE. WRITE, WIRE OR PHONE FOR COMPLETE DETAILS ON THE HOTTEST ITEM TO HIT THE INDUSTRY IN 10 YEARS.

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Only PARMETIC
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Chile Down But Far from Out as a Market for Refrigeration Equipment, Analyst Says

By Eugene Heszy, International Market Analyst

Whereas it is our task to analyze the market of today for the American product, there are cases where a short glance at recent economic happenings is necessary in order to get the right perspective for the future. Chile is a case in point.

Twenty-five years ago, the leading South American countries were Argentina, Brazil, and Chile. Just prior to World War II, Chile occupied eighth place among the Latin-American countries as a customer of the U. S. household refrigeration industry. Today, according to 1948 figures, it only occupies thirteenth place.

How was such a recession possible and can this trend be reversed in the future?

What Led to Recession

Here, in short, is what happened to Chile. Prior to World War I, the world purchased the greatest part of nitrogen salts needed for fertilizers for agricultural purposes and for the manufacture of ammunition from Chile.

Under the pressure of the effective blockade in the first World War, England and Germany developed the production of nitrogen salts from the nitrogen contents of the atmosphere and one of the most vital industries of Chile received what amounts practically to a knockout blow.

However, nature has favored this beautiful country—which stretches from about the 17th degree latitude (not too far from the equator) to Cape Horn, latitude 56 degrees—with mineral riches, led by magnificent copper mines which may form the backbone of a new era of healthy economy if—

This "if" is an economic system consisting of a peculiar mixture of nationalism and socialism, with the accent on the latter. The result of the product of some super-planning and of installing social benefits which appear premature for a country in the development stage, has been—since World War II, particularly—a strong inflationary movement of prices with all its sinister consequences.

In 1948, Chile was the second largest producer of copper in the world. In 1947, the United States was leading with 768,892 metric tons, with Chile following with 414,478 metric tons.

Copper Output on Rise

But this is not all. Chile has built up an industry of its own with such good effect that the country occupied at the outbreak of the last war tenth place in the world for total manufactures produced (\$1.3 billion), ranking immediately behind Argentina and ahead of Australia and the Union of South Africa.

The eyes of the country are at present directed towards the southern region where oil has been struck, promising profitable exploitation.

Despite all these assets and an intelligent population, consisting of about 5½ million persons, of which 30% are white and 65% mestizo, the total purchase of air conditioning and refrigeration equipment in 1948 amounted to only \$486,000. This compares with a total imported value of \$133,000 in 1938; \$163,000 in 1939; and \$219,000 in 1940.

These figures look very erratic, but if the country of origin of these imports is investigated, the difficulties surrounding this market become still

Composition of U. S. Air Conditioning and Refrigeration Equipment Exports to Chile in 1948

Electrical household refrigerators, incl. parts	\$245,000
Air conditioning units, incl. condensers for such units, etc.	62,000
Ice-making equipment	11,000
Air diffuser units	4,000
Self-contained commercial refrigerators	8,000
Liquid cooler air conditioning equipment and refrigeration equipment	2,000
Room air conditioning units	25,000
Commercial air conditioning units	16,000
Electric mechanical refrigerator (commercial) ..	.....
Auxiliary equipment	80,000
Assembly and replacement parts	33,000
Total:	\$486,000

(Against this total compares the total for the average over the years 1937-1941, amounting to \$157,000 and composed of \$114,000 in electrical household refrigerators, \$11,000 in electrical mechanical refrigerators (commercial), and \$32,000 in parts for assembly and replacement for both types. Apart from these American exports, the United States also shipped on the average, before the war, about \$5,000 worth of non-electric household and commercial refrigerators to Chile each year.)

more pronounced.

In 1938, the United States covered about one half of the imports of unfinished equipment. Second and third places were taken by Denmark and Great Britain.

In 1939, the United States still supplied one half, Denmark about one third, and Britain practically nothing. In 1940, Argentina took the lead over with nearly 60% of un-assembled air conditioning and refrigeration imports to Chile, the balance being almost entirely made up by this country.

Picture Since the War

Since the end of the last war, up to about two years ago, the general picture was that the United States supplied the bulk of the imports with all other countries, led by Argentina, being responsible for a very small minority (under 10%). In finished equipment, the U. S. has taken over and held the lead for several years.

It is a paradox that American exporting industries have to wage a battle for their market in Chile. These markets actually should be wide open and should form a natural outlet for our manufacturers.

In 1948, the exports of the country amounted to about \$50,000,000 more than the imports. Who are the principal customers of Chile?

The list is headed by the United States, the greatest copper buyer of the world. However, Chile and her neighbor, Argentina, have formed an intimate trade alliance, based upon the products of both countries which are complementary to a certain degree.

Where Argentina could not obtain prompt payment for its exports to Chile, credits were granted which amounted in 1946 to \$27,000,000. These credits were given in the form of a revolving or perpetual credit facility. It could be rightfully stated that these credits were only possible because Argentina has been very slow—not to use a stronger expression—to fulfill her own hard currency trade obligations.

Within Argentine Circle

Despite this economic anomaly we have to reckon with the fact that Chile is at the moment, to a certain extent, within the Argentina trade circle. The situation is not made easier by the strong socialistic influence within the country which has led to many political strikes in recent years.

We must consider all these happenings as being of a passing nature and shall therefore give our attention to the concrete outlook for sales of our industry in Chile.

As mentioned above, the yearly exports from the United States, prior to the last war, of equipment of our industries amounted only to between \$100,000 and \$200,000. However, the total need of air conditioning and refrigeration equipment was nearly twice as high.

The great supplier, larger than the United States, had been Germany. The methods followed were a mixture of shrewd application of cheap export marks, in combination with intelligent market research mostly carried out by the younger generation of German exporters on the spot.

The local demands of the country, which has a wide variety of different climates were studied, and the equipment to be exported was

adapted to the domestic Chilean requirements.

The above remarks about credits from Argentina and special market treatment from former suppliers shows the way for the American exporter. It seems that the time of the irrevocable letter of credit, to be received before shipment of our merchandise, is a thing of the past. We shall also, in this and many other foreign markets, be wise to organize our exports in accordance with the mentality and buying power of the customer country.

Demand and Preference

The U. S. Department of Commerce estimates that the average actual demand for household refrigerators is 2,500 a year with preference for the 3, 4, or 5-cu. ft. capacity. In recent years, apartments and houses have been constructed in sizes which will also allow the placement of 6 and 7-cu. ft. units.

Until a year and a half ago, Chile had no domestic refrigerator manufacturing plant, but two Chilean companies are assembling commercial refrigerators from imported parts. The cabinets are made in the country. The annual capacity of these two companies is estimated at between 150 and 175 units.

A similar procedure is adopted for air conditioning installations: parts made abroad, design, installation, and ductwork done locally.

The Chilean government is levying rather heavy customs duties on refrigerators of all classes, whether for commercial or domestic use. Details of this complicated tariff cannot be mentioned within the framework of this article.

Despite the difficulties described above, the Chilean market should not be neglected and actually offers a broad field for possible excellent development. The government is actively interested in building up the industry of the country and in improving housing, schooling, etc.

The government-sponsored Fomento Corp. only a few months ago announced that 17 new factories will be erected near the site of the Pacific Steel Plant at San Vicente. Included amongst these are two brick plants, a carbide plant, sulphuric acid plant, railway equipment factory, wire factory, and an agricultural machinery plant.

Expect To Employ 28,000

Approximately 28,000 workers are expected to be employed in these industries in addition to the steel plant workers.

The petroleum service of Fomento has announced that a preliminary production test on Springhill Well No. 16 was successful. Two rigs are now working in the discovering field and one is working at San Sebastian, 60 miles to the southeast of the former location.

These facts alone clearly indicate the progress of industrial life in Chile and open prospects for our particular equipment.

Miss Keiser In Export Club

SOUTH WINDHAM, Me.—The New England Export Club with headquarters in Boston, admitted Miss Lillian Keiser, export manager at The Baker Refrigeration Corp. as an active member.

The club meets monthly to discuss rapidly changing picture in the export field and to exchange various experiences.

35th Trane Export Outlet To Serve Pakistan Area

LA CROSSE, Wis.—The Trane Co., here has announced the appointment of Duncan, Stratton & Co. (U.K.) Ltd., Karachi, Pakistan, as distributor of its heating, cooling, and air conditioning equipment in Pakistan.

Also included in the new territory will be the portion of Pakistan lying to the east of India, and partially in the provinces of Bengal and Assam.

Recently formed specifically for operation in Pakistan, the company is a subsidiary of Duncan, Stratton & Co., Ltd., of India.

The appointment brings the Trane Co.'s foreign representation to 35 export outlets.

Whirlpool Washer, Ironer Now Available for Export

ST. JOSEPH, Mich.—Development of a new transformer suitable for the various voltages used abroad has enabled Nineteen Hundred Corp. here to make its Whirlpool automatic washing machine and ironer available for export, according to Jack D. Sparks, in charge of export activities.

Admiral Names Perez of Panama

PANAMA CITY, Panama—Carlos Perez Cia, Ltda. here has announced that it has been appointed exclusive distributor in the Republic of Panama for Admiral products.

To Reach All Key Men . . . in the Refrigeration and Air Conditioning industry throughout Canada, use the only Canadian publication covering the field. . . .

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June Freezer Sales Bring NEMA 6 Mos. Total to Nearly 148,000

(As reported to National Electrical Manufacturers Association)

Electric Farm and Home Freezers—Complete—Sales by Sizes—Units.
Farm and home freezers complete with high and low side and cabinet, where 50% or more of the net cabinet capacity is designed for the freezing and/or storage of frozen food.

JUNE (28 Companies)				
Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. 4.9 cu. ft. and under...	1,903	...	96	1,999
2. 5.0 to 6.9 cu. ft.	3,250	...	92	3,342
3. 7.0 to 8.9 cu. ft.	6,336	...	179	6,515
4. 9.0 to 10.9 cu. ft.	4,282	...	8	4,290
5. 11.0 to 12.9 cu. ft.	5,110	...	6	5,116
6. 13.0 to 16.9 cu. ft.	4,065	...	11	4,076
7. 17.0 to 20.9 cu. ft.	2,144	...	4	2,148
8. 21.0 to 29.9 cu. ft.	109	...	...	109
9. 30.0 to 39.9 cu. ft.	130	...	...	130
10. 40.0 to 49.9 cu. ft.	3	...	...	3
11. 50.0 to 59.9 cu. ft. ....	...	...	...	...
12. 60.0 cu. ft. and over...	7	...	...	7
Total—All Models	27,339	...	396	27,735
13. Total Upright Models (included in above)...	1,096	...	16	1,106

FIRST SIX MONTHS (27-31 Companies)				
Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. 4.9 cu. ft. and under...	8,725	...	827	9,552
2. 5.0 to 6.9 cu. ft.	18,615	...	499	19,114
3. 7.0 to 8.9 cu. ft.	32,838	1	571	33,410
4. 9.0 to 10.9 cu. ft.	10,955	...	29	10,984
5. 11.0 to 12.9 cu. ft.	31,044	...	86	31,130
6. 13.0 to 16.9 cu. ft.	24,742	...	61	24,803
7. 17.0 to 20.9 cu. ft.	16,523	...	42	16,565
8. 21.0 to 29.9 cu. ft.	951	...	...	951
9. 30.0 to 39.9 cu. ft.	1,415	...	...	1,415
10. 40.0 to 49.9 cu. ft.	10	...	...	10
11. 50.0 to 59.9 cu. ft.	1	...	...	1
12. 60.0 cu. ft. and over...	29	...	...	29
Total—All Models	145,848	1	2,115	147,964
13. Total Upright Models (included in above) ..	7,862	...	32	7,894

Participating companies: AVCO Mfg. Co.; August G. Barkow Mfg. Co.; Beatty Mfg. Co.; Ben-Hur Mfg. Co.; Brewer-Titchener Corp.; Carrier Corp.; The Coolerator Co.; Deepfreeze Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint, Inc.; International Harvester Co.; Kelvinator Div., Nash-Kelvinator Corp.; Masterfreezer Home Locker Mfg. Co.; The Maytag Co.; Norge Div., Borg-Warner Corp.; Oregon Refrigerator Co.; Portable Elevator Mfg. Co.; Revco Inc.; Sanitary Refrigerator Co.; Schaefer, Inc.; Emil Steinhurst & Sons, Inc.; Sub-Zero Freezer Co., Inc.; Victor Products Corp.; Westinghouse Electric Corp. (In 5-1-49); Wilson Cabinet Co., Inc.; Whiting Corp.; Ace Cabinet Corp. (Out 2-1-49); R. H. Bishop Co. (Out 1-1-49); Chapman Refr. Sales Co. (Out 1-1-49); General Refrigerator Corp. (Out 3-1-49); Seeger Refrigerator Co. (Out 3-1-49); Stoddard Mfg. Co. (Out 4-1-49).

Payne Div. Will Move Facilities to Monrovia

MONROVIA, Calif.—Payne Furnace Div., Affiliated Gas Equipment, Inc., will shortly move its manufacturing facilities from Beverly Hills to Monrovia, Calif. where the plants of the Day & Night Div., manufacturer of water heaters and Panelray space heaters, are being expanded to accommodate manufacture of the Payne line.

In addition, two new buildings are nearing completion for Payne sales offices, research staff, and warehousing. The Payne plants in Beverly Hills will be sold.

At the same time, Payne's retail operations will be discontinued and dealers appointed to handle the Payne line in Los Angeles and Orange counties, where retail branches have been maintained heretofore.

Day & Night and Payne will each maintain its separate identity, as in the past. There will be no combining of sales personnel, sales activities, or product distribution.

G-E Halts Vacuum Coffeemaker In Preparation for New Line

BRIDGEPORT, Conn.—Readying a new line of coffeemakers for introduction after the first of next year, the General Electric Co. has announced that it is discontinuing its current line of vacuum coffeemakers.

Prices on these models have been reduced—but are still fair-traded—as follows: P14 (non-electric), \$3.95 to \$1.95; P16 (electric), \$6.95 to \$4.95; P15 (electric), \$8.95 to \$5.95; P17 (semi-automatic), \$10.95 to \$7.95; and P18 (automatic), \$17.95 to \$12.95.

Roper Heads San Antonio Appliance Dealers Association

SAN ANTONIO, Texas—New officers of the Appliance Association of San Antonio are:

Harry Roper, Alama Distributing Co., president; Fred Brinkley, Joske's, vice-president; and Howard Barsotti, A. C. Toudouze Co., secretary-treasurer. The latter was re-elected.

The retiring president of the association is C. L. Macneal, Wolff & Marx Co.

Every One in the Industry

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THE LAUGH-LEARN-PROFIT BOOK
by GEORGE F. TAUBENECK

... Because Every Laugh Drives Home a SOUND SALES PRINCIPLE!

"This is a funny book," declares George Taubeneck, editor of *Air Conditioning & Refrigeration News*, in his heading for Chapter 1. That's true. You'll laugh! You'll learn, too.

"One Foot in the Door" is the laugh-and-fact-packed story of Specialty Selling. It takes you back through chuckling pages to the birth of the specialty merchandising art under John H. Patterson of N.C.R. fame, and it takes you forward—again with smiles and guffaws—to the shining future.

It clearly depicts the selling principles which years of experience

have set up—and makes them easy to remember by associating these principles with humorous anecdotes. It vigorously points up the job ahead for sales management—tells what, where, why, when, and how.

It pleads eloquently for—and points the way toward—the more efficient distribution system that will be one of the strongest bulwarks of private enterprise.

It does all this so agreeably and fascinatingly that, when you finally finish it, you'll call it the most enjoyable book you've read in a decade.

Company Must Regularly Supply Union with Data on Merit Ratings of Employees To Meet Bargaining Contract, NLRB Holds

GLENDALE, Calif.—A trial examiner for the National Labor Relations Board Aug. 1, held that a union is entitled to full information on the merit ratings of employees, even though its contract gives the employer complete power to make merit ratings and pay raises based upon such ratings without consulting the union. The ruling was made by Trial Examiner David London in a case brought by Lodge No. 1600 of the International Association of Machinists (unaffiliated) against the General Controls Co., of Glendale, manufacturer of automatic pressure and control devices.

The trial examiner found that the company was guilty of a refusal to bargain collectively by refusing to furnish the union: (1) the names of employees who received merit raises; (2) the amount of such increases; (3) complete seniority lists of the various departments; and (4) the rating review cards of all employees. He recommended that the company be required to furnish this data.

He held that the union needed this information in order to determine whether or not the contract was being properly administered. In addition, the union needed it to present grievances properly, the trial examiner held. The merit ratings were used by the company also in determining lay-off discharges and promotions.

The trial examiner further held that the company should be required to furnish merit rating information on all employees in the bargaining unit—both union members and non-union members.

Unless contested before the Board Members by one of the parties within 20 days, the trial examiner's recommendation takes effect as a Board order, enforceable in U. S. Court of Appeals.

Ruling on another point in the case, the trial examiner held that the company was within its rights under the contract with the union in

refusing to consult further with the union before granting merit pay increases.

He held that the contract gave the company the "exclusive right and power" to administer the merit rating plan in accordance with the contract. Therefore, he concluded, the company did not need to consult or negotiate with the union before making the merit ratings, but the ratings and promotions, lay-offs, discharges, or other actions based upon them were subject to the grievance machinery of the contract.

On the union's need for the merit rating information, the trial examiner said:

"While Respondent [Company] agreed that it would furnish the requested information if a grievance were filed, it would not do so to enable the Union to check on the administration of the contract." The Union, however, was entitled to have, and indeed required, the requested merit rating and wage information in order to determine whether grounds for a grievance existed. Without such data, it was operating in the dark and could not determine whether the Respondent had been guilty of maladministration of the contract.

"Nor was the Respondent's willingness, or past practice, to supply the information only as to a limited number of employees, compliance with its duty to furnish such information. Unless the data was supplied department-wide in every department in which a merit rating or increase was granted, the information would not be complete.

"Nor is there any merit to the second reason assigned by Respondent for refusing to supply the Union with the requested information—that there 'were non-union members—who might object to the Union having that information.' Such a contention cannot stand 'in the face of the expressed social and economic purposes of the statute.—[By refusing] to

supply the wage history the [Respondent] has failed to co-operate wholeheartedly in collective bargaining."

"I therefore conclude that when Respondent refused, on and after Oct. 18, 1948, to furnish the Union with department-wide information as to the basis employed by it in granting merit ratings and merit wage increases, it failed in its statutory duty to bargain collectively with the Union in respect to wages and other conditions of employment."

The trial examiner reported that in recent months the merit ratings have played a large part in determining the order in which employees were laid off. He said:

"The importance of rating comes into even bolder relief in the instant proceeding, because here, the [Company] had approximately 500 production and maintenance employees in Oct. 1948, but at the time of the hearing (May 24, 1949), this staff had been reduced to 240-275."

The contract set forth in considerable detail the manner in which merit ratings were to be calculated. Among other things, it established a system of merit score categories, by which, the trial examiner found, an employee who had only 5 months seniority but a merit score of 85 would receive priority treatment in lay-offs and discharges over employees with 5 years seniority who had a merit score of 84.

Taylor Is Vice President Of Commercial Credit Co.

BALTIMORE—James P. Taylor, for many years divisional manager of Commercial Credit Corp. in Memphis and since the war in charge of that company's entire northeastern territory, has been made a vice president of Commercial Credit Co., the parent company.

Taylor began his career as an adjuster and has served in every capacity leading up to his new post.

CHAPTER TITLES from "One Foot in the Door"

1. "This Is a Funny Book"
2. The Old Master—and How He Got That Way
3. Making Direct-Mail Advertising Respectable
4. Hair Grows on a Billiard Ball
5. Publicity Isn't Always Free
6. People See Better Than They Hear
7. How to Humanize Your Company
8. Tom Thumb Cartels
9. Finding the Rainbow's Pot-of-Gold
10. There's Always One Best Way to Tell Your Story
11. You Can't Get Off First Base Without a Sales Manual
12. "It Pays for Itself"
13. Ask the Man Who Uses One
14. Everybody Loves a Convention
15. Sales Training Schools Must Be Clever and Entertaining
16. Circuit Riding Becomes a Profession
17. Make It Clear, Make It Simple, Make It Direct
18. Just a Minute, Dear
19. Five Will Get You Ten
20. Mama Can Help, Too
21. Ask the Man Who Does the Work
22. Factory Open House Felloy
23. Who Says You Can't Sell Abroad?
24. "Tell All" Promotion Rings the Bell

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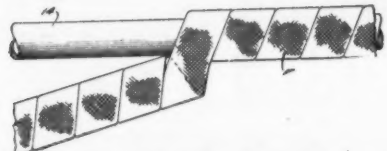
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PATENTS

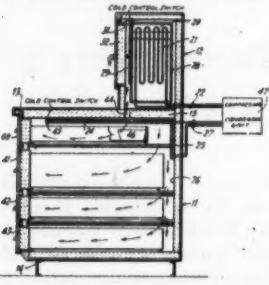
Week of April 26
(Concluded)

2,468,589. **INSULATING TAPE.** Robert E. Cryor, Western Springs, and Henry J. Cahill, Berwyn, Ill., assignors to Union Asbestos & Rubber Co., Chicago, Ill., a corporation of Illinois. Application Sept. 28, 1945, Serial No. 619,114. 3 Claims. (Cl. 154-44.)



1. An insulating tape comprising a cover sheath of woven material, a relatively flat wide strip of insulating material in the cover sheath forming therewith an elongated helical spring means fitting within the cover sheath resiliently to hold the tape in helical form.

2,468,719. **SETBACK REFRIGERATOR.** Guyon L. C. Earle, Forest Hills, N. Y., assignor to Hugh S. Wertz, trustee for the beneficiaries of the Earle Patents Trust. Application June 20, 1945, Serial No. 600,519. 8 Claims. (Cl. 62-89.)



1. A first insulated enclosure member adapted to be refrigerated, a second insulated enclosure member adapted to be refrigerated, said second member being smaller than said first member and positioned above it in such a way that the front of said second member is set back from the front of said first member, a table-top member above that portion of the first member which is in front of the second member, a plurality of drawers in said first member, means in said first member for refrigeration said first member to a temperature below room temperature but above freezing, a closed compartment having a door in said second member, means in said second member for refrigerating the compartment in said second member to a temperature below freezing, and a partition member between said two enclosure members, said partition member having a relatively small opening in the front thereof whereby the warmer air in the first member warms the air in said second member in front of the door in said compartment.

AVAILABLE FOR LICENSING OR SALE

Kinetic Chemicals, Inc. offers the following patents for licensing on reasonable terms. Inquiries concerning these patents should be addressed to Kinetic Chemicals, Inc., 101 West Tenth St., Wilmington 98, Del.

Pat. 2,146,884. **REFRIGERATION PROCESSES AND COMPOSITIONS.** Patented Feb. 14, 1939. A refrigerant mixture comprising a high boiling halofluor hydrocarbon having at least one fluorine atom attached to an acyclic carbon atom as an absorbent and a fluorine-containing hydrocarbon refrigerant. Group 28-89. Reg. No. 19,391.

Pat. 2,212,826. **REFRIGERATING SYSTEM.** Patented Aug. 27, 1940. Process of refrigeration which comprises condensing and evaporating a halogenated hydrocarbon in the presence of a mineral oil containing picolinic acid. Group 28-89. Reg. No. 19,394.

Pat. 2,283,666. **WARNING AGENT.** Patented May 19, 1942. A refrigerant comprising a fluorochloro hydrocarbon and a small amount of oenanthol. Group 28-89. Reg. No. 19,396.

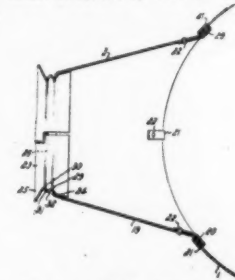
Pat. 2,365,516. **REFRIGERANTS AND PROCESS OF MAKING THEM.** Patented Dec. 19, 1944. In the process of adding HCl or HBr to a chlorofluoroethylene, the steps which comprise heating an anhydrous mixture of the reactants at 150-400° C. in the presence of active carbon and separating the addition product from

the reaction mixture. Group 28-89. Reg. No. 19,401.

Pat. 2,393,304. **REFRIGERANTS AND PROCESS OF MAKING THEM.** Patented Jan. 22, 1946. The method of producing CHF₂CClF₂ by heating C₂F₄ with anhydrous HCl at 150-400° C. in the presence of carbon. Group 28-89. Reg. No. 19,402.

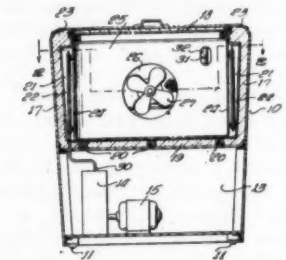
Week of May 3

2,468,858. **OUTLET FOR HUMIDIFYING DUCTS.** Agnew H. Bahnsen, Jr., Winston-Salem, N. C. Application Aug. 9, 1944, Serial No. 542,764. 9 Claims. (Cl. 98-40.)



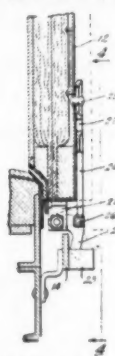
1. An outlet of the type described which comprises a sleeve having the general shape of a truncated cone having one substantially straight side and an opposite side tapered towards the outlet, a flaring flange at the inlet end of said sleeve and a collar mounted at the discharge end of said sleeve, said collar having an outwardly flaring flange and an inwardly extending annular rib circling the outlet adjacent said flange and forming the most constricted point of said outlet.

2,468,932. **REFRIGERATING CABINET HAVING AN AIR-PUMP CIRCUIT.** Frazier N. James, Dallas, Tex., assignor, by mesne assignments, of thirty-three and one-third percent to The Master Corp., a corporation of Arkansas, thirty-three and one-third percent to Frazier N. James, and thirty-three and one-third percent to Richard A. Gump. Application Nov. 29, 1946, Serial No. 712,867. 1 Claim. (Cl. 62-102.)



In a dry cooling unit, the combination comprising a cabinet having upper and lower compartments and whose side walls are inwardly convergent at the bottom thereof, a refrigerating unit in the lower of said compartments, said upper compartment being insulated against external temperature influences and whose interior side and end walls are longitudinally recessed, a refrigerating coil lying wholly within each of said sidewall recesses and through which a refrigerant is circulated by said refrigerating unit, a removable commodity chamber within said upper compartment whose side and end walls completely cover and separate said recesses from said chamber, the latter having an opening in each end thereof communicating with the end recesses, means for establishing and maintaining suction through said openings to effect circulation of air through said chamber and said coil recesses across said coils and a hinged cover closing the top of said cabinet and chamber.

2,468,936. **LATCH MECHANISM FOR CASE DOORS.** John S. Lundvall, Park Ridge, Ill., assignor to Union Asbestos & Rubber Co., Chicago, Ill., a corporation of Illinois. Original application March 17, 1943, Serial No. 479,422. Divided and this application Sept. 11, 1944, Serial No. 553,530. 1 Claim. (Cl. 292-237.)

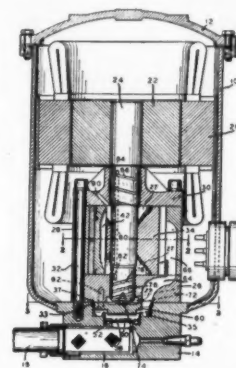


A latch device for a refrigerator car door movable longitudinally of the car and laterally toward and away from an opening in the car which comprises a latch member having a horizontal connecting arm pivotally secured at one end to the lower part of the door and extending outward therefrom and a vertical depending latch arm extending downwardly from the outer end of said horizontal connecting arm, said depending latch arm adapted to be received between a pair of spaced abutments adjacent to the lower horizontal edge of the door, and an operating member pivotally secured to the latch member adjacent the junction of the connecting arm and the latch arm and adapted when raised to move the latch arm away from the spaced abutments to permit longitudinal movement of the door, said operating member being slidably connected to the door and supported vertically by the latch member so that its weight urges the latch member toward the abutments.

2,468,948. **SEALED MOTOR-COMPRESSOR UNIT.** Rolf M. Smith, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application May 28, 1945, Serial No. 596,287. 11 Claims. (Cl. 230-139.)

3. In a sealed motor-compressor unit: a cup-shaped casing formed of stamped sheet metal material; a motor including a motor stator supported by said casing; compressor mounting means secured to the bottom wall of said casing; a compressor assembly comprising a cylinder,

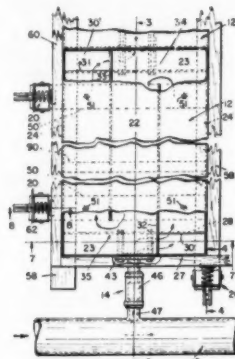
top and bottom end plates for said cylinder having shaft bearing apertures therein, a shaft driven by said motor, an impeller between said end plates driven by said shaft, a longitudinally extending oil feed passage provided in said shaft, said



compressor assembly and said compressor mounting means having formed therebetween a lubricant cavity, means for feeding lubricant to said cavity, spiral oil feed grooves provided on said shaft, one of said grooves having its inlet in said cavity and having its outlet communicating with the lower end of said oil feed passage, a second oil feed groove on said shaft having its inlet end communicating with the upper end of said oil feed passage and having its lower end discharging lubricant adjacent the upper end of said impeller, a third oil feed groove having

its inlet in said lubricant cavity and having its outlet adjacent the lower end of said impeller.

2,469,021. **PORTABLE ICE SKATING FLOOR.** Herman Vetter, Los Angeles, Calif. Application May 2, 1947, Serial No. 745,470. 9 Claims. (Cl. 62-12.)



1. In ice rink construction, a plurality of hollow floor sections joined together in edge to edge relation constructed and arranged for circulation of a refrigerant therethrough, means forming a curb around said sections, and resilient means at spaced points along the outer side of said curb yieldingly urging the curb against said sections.

(To Be Continued)

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POSITIONS WANTED

DO YOU have a help problem? Let us solve yours. Select from our graduates the man qualified to handle your work. We have men available for all parts of the country, who have completed 34 weeks of practical shop refrigeration and some who have also completed our practical advanced training course in air conditioning. Many are very well qualified. THE ST. LOUIS SCHOOL FOR ELECTRICITY AND REFRIGERATION, INC., 6767 Southwest Avenue, St. Louis 17, Missouri.

SERVICE MANAGER or field service engineer. Twenty-three years experience in commercial refrigeration and air conditioning installation and service up to and including 300 ton systems. Have managed own sales and service business in the South most of time. Location immaterial. BOX 3263, Air Conditioning & Refrigeration News.

AIR CONDITIONING and refrigeration service engineer, ten years experience, past four years as service manager for large refrigeration concern, now employed. Estimate, layout, installation, service. Desire position with concern offering opportunity for an efficient, capable man. BOX 3267, Air Conditioning & Refrigeration News.

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REFRIGERATION ENGINEER, with experience in household refrigeration, for very interesting sales position with large parts manufacturer. Prefer man, thirty to thirty-five years of age. Give all details in first letter. Our employees know of this ad. Reply BOX 3260, Air Conditioning & Refrigeration News.

ESTABLISHED MANUFACTURER of refrigeration equipment including home and farm freezers, milk coolers and commercial refrigeration equipment has a number of openings for district sales managers. New national sales plan affords very attractive opportunity for men experienced in the sale of refrigeration equipment. Send complete information to BOX 3265, Air Conditioning & Refrigeration News.

SALES ENGINEERS wanted by growing manufacturer of heat transfer equipment for Middle West territories. Excellent opportunity for men with technical background and interest in advancement with growth of business. Write giving full particulars of experience, etc. BOX 3266, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

FOR SALE: Frosty or ice cream maker and cabinet, S. S. top, model 640R, "Taylor," complete with unit, self-contained, new, 2 only, reg. \$1300, our price, \$550. Government surplus, 125 and 150 cu. ft. portable walk-ins, freezer or coolers, all metal, complete with units, gasoline or electric driven, new, \$700 up. New sectional K. D. Navy boxes, manufactured by nationally known companies, 6" fibre glass insulation, metal inside and out, hardwood floor racks, \$1500, F.O.B. for 24" x 1210" x 7 1/2" high, 2 doors, 1 partition. Can be made any width wider, every 46", panels crated or uncrated. Plug in type carrier units extra. Write for details and prices. All prices F.O.B. Los Angeles. A-1 REFRIGERATION, 735 N. Western Ave., Los Angeles 27, Calif.

DOMESTIC REFRIGERATORS—All complete, including units, from \$5 up. Standard brands, as is, large or small quantities. Great opportunity for dealers and service men. APPLIANCE PRODUCTION CORP., 59 Crosby St., New York 12, N. Y.

NEW MOTORS—Priced below wholesale. All 115/230 volt, 60 cycle. Ball bearing, 1750 R.P.M.—single phase—repulsion induction. (All prices net, F.O.B. Norwich, N. Y.) General Electric, 3 h.p. (type KCJ—frame #225). Reg. \$159. Spec. \$95. Brown-Brockmeyer, 3 h.p. (type RM—frame #225). Reg. \$129. Spec. \$75. 2 h.p.

(type RM—frame #224). Reg. \$102. Spec. \$57.50. Motors are brand new, in original crates, fully guaranteed by manufacturer. Send remittance or write—supply limited—rush order to BENNETT-IRELAND INC., Norwich, N. Y.

COMPRESSORS, NEW 1 H.P. to 7 1/2 H.P. water cooled Universals and Copelands at less than distributor's cost. BIMEI CO., Cincinnati, Ohio.

SERVICEMEN OR manufacturers. A real scoop. \$1.00. On flexible refrigeration lines. Tested to 1,500 pounds. Approximately 1/4" I.D. x 1/2" O.D. Rubber covered. 30" long with 1/4" male flare end. \$1.00. 36" long, 1/4" female flare end. \$1.15. 10,000 is all. Subject to prior sale. Order now. Get all you need. HERCO MFG. CO., 1245 N. High St., Columbus 1, Ohio.

SPECIAL CLOSE-OUT—250 Liberty Motor & Engineering Co. refrigeration compressors. New—1/2 hp.—sealed. For use with "Freon" (F-12). Can be adapted to low temperature cabinets, milk coolers, or for any ordinary air compressor or high grade vacuum pump. F. L. JACOBS CO., 1100 W. 21st St., Indianapolis, Ind.

HERMETIC CONDENSING UNITS—new, complete, fan cooled. "F-12," specify for normal or low temperature application. 1/4 HP.—\$30.00, 1/2 HP.—\$35.00. Pressure or temp. control \$4.50 extra if desired. KEL KOLD CO. INC., Johnstown, N. Y.

SUBJECT TO prior sale. New Servel condensing units less controls in original shipping crates and under warranty. 6—1/4 H.P. high temp. @ \$45.00 each. 69—1/2 H.P. high temp. @ \$50.00 each. 86—1/2 H.P. low temp. @ \$50.00 each. F.O.B. Rochester, Minnesota. Substantial saving if you act now. KEPP ELECTRIC & MFG. COMPANY, Rochester, Minnesota.

SACRIFICE PRICES—Vilter Packagers—1 ton/day, 1/2 ton storage bin—complete, 6 ton/day, 5 ton bin, leveling bar. 15 ton "packaged" air conditioning unit—complete, Chrysler compressors ACR10, ACR15, 25 HP Allis-Chalmers motor with rails. Surplus pre-fab freezer boxes all sizes with 3, 5 HP "packaged" refrigeration units. All equipment brand new. MOORE & HANKS' COMPANY, 2632 Humboldt St., Los Angeles 31, California.

NEW, IN original crates. Two 5-ton Marley evaporative condensers, \$300.00 ea. One model X-5 McQuay Zeropak tunnel freezer, water defrost. "Freon," includes expansion valve, \$820.00. Three 5 H.P., 3-phase low temperature Universal condensing units, water cooled, \$400.00 ea. Three Marley, low temperature coolers, water defrost, expansion valve included: two 3-ton, \$200.00 ea.; one 5-ton, \$240.00. Twenty 22 x 60 Kold-Hold freezer plates, \$8.00 ea. PLANCO MFG. CO., INC., P. O. BOX 643, Wichita, Kansas.

HERMETICS, BRAND new Kelvinator 1/2 H.P. fan cooled, model S-20 medium temperature, 115 volt, 60 cycle. Price F.O.B. Chicago, lots 1 to 10 \$44.50; lots 10 or more \$37.50 ea. Packed original factory crates. Deposit with order 10% balance C.O.D. Write or wire UNITED PRODUCTIONS CO., 27 S. Desplaines St., Chicago 6, Illinois. Dept. O-89.

BRAND NEW Kramer Trenton Thermobanks: #TV75 complete—including blower, Thermobank, solenoid, Torq clock, heat exchanger, strainer, 95.63 ea. #TV103 complete—including blower, Thermobank, less solenoid, Torq clock, heat exchanger, strainer, \$99.40 ea. Comb. #207 complete—including blowers, Thermobank, solenoid, Torq clock, heat exchanger, strainer, \$175.00 ea. Comb. #1 complete—including blowers, Thermobank, less solenoid, Torq clock, heat exchanger, strainer, \$158.03 ea. Universal units—heavy duty, complete with Ranco pressure controls: 25FS 1/4 H.P. air cooled, \$53.20 ea. 2" FPT Perfection, \$15.00 ea. 2 1/2" FPT Perfection water regulating valve, \$20.00 ea. 3" FPT Simoniz water regulating valve, \$35.00 ea. 3" FPT Perfection water regulating valve, \$25.00 ea. Electric motors, single phase: 2 H.P. Century, 110/220, 60 c. \$59.12. Universal hermetic unit: S13L-1 1/2 H.P. low temperature, \$49.50. Tecumseh compressor bodies, 2300 1/2 H.P., twin cylinder, complete with flywheel and service valves, \$18.50. Electric motors—3 phase: 3 H.P. Wagner 220/440-v. 60 c. \$51.09. 5 H.P. Wagner, 208-v. 60 c. \$60.85. 5 H.P. Wagner, 220/440-v. 50/60 c. \$60.85. 10 H.P. General Electric, 380-v. 50 c. \$101.01. 10 H.P. General Electric, 220/440-v. 50 c. \$101.01. 10 H.P. Wagner, 220/440, 50/60 c. \$101.61. Cutler-Hammer magnetic starter,

50% lower than jobber quotations: CH-9584H283, size 0, \$7.50. CH9584H285, 0, \$7.50. CH9584H295, 0, \$7.50. CH9584H330, size 1, \$8.00. CH9584H331, 1, \$8.00. CH-9584H335, 1, \$8.50. CH9584H347, 1, \$8.00. CH9584H517, 1 1/2, \$9.00. CH9584H518, 1 1/2, \$9.00. Low pressure controls: type PH-20" V. 40# range 5-30# differential 10-26# setting, Cutler-Hammer, \$2.95. Receiver: 1 H.P. air cooled with shut off valves, \$5.00 ea. American Injector oil separators: #400S 3/4" inlet, 3/4" outlet, \$5.00. 3/4 H.P. condenser, 3 pass, \$6.00. Penn low pressure control, #280 APOI style 5 20" Vac. to 50 lbs. min., 5 lbs. to 40 lbs., \$4.50 ea. Penn pressure control, type L, model LPX, style 5, 20" Vac. to 50 lbs. min. 5 lbs. to 40 lbs., \$4.50 ea. Cutler-Hammer A.C. across the line magnetic starters, 9586-H732, 208/220-v, 60 cyl., \$15.00 ea. White-Rodgers elec. hydraulic action temperature controllers, A-218, \$4.50 ea. White-Rodgers elec. heavy duty line voltage, thermostat hydraulic action #196 40°-80°, \$4.50 ea. Detroit Lubricator thermostat #250 cut in 28°, out 34°, model RL—range 0-60, \$4.50 ea. Cutler-Hammer 9508-N67, fan economizer thermostat temp. applications without overloads, \$2.10 ea. Scott check valve 3/4" FPT #87 "Freon," \$1.25 ea. Scott check valve 1/2" FPT #87 "Freon," \$2.00 ea. Scott check valve 3/4" solder conn. Fig. 30C, \$4.25 ea. Scott check valve 1" solder conn. Fig. 30C, \$4.25 ea. Scott check valve 1 1/4" solder conn. Fig. 30C, \$4.25 ea. Henry 1 1/4" FPT check valve type 21C, \$7.00 ea. General Controls magnetic gas valve #3R313—Int. Thd. 1 1/4" N.P.T. inlet & outlet, \$11.00 ea. Alco Valve Co. magnetic solenoid valve type S220, 110 volt, 60 cycle, \$10.00 ea. Alco Valve Co. magnetic solenoid valve, type S200, 220 volt, 60 cycle, \$10.00 ea. Alco Valve Co. magnetic solenoid valve, type M635, 220 volt, 60 cycle, \$10.00 ea. Detroit Lubricator thermostatic exp. valve 1-3 ton rating, \$5.00 ea. Sporlan Valve Co. expansion valve, type 1TGF "Freon" high temp., \$5.00 ea. Spoeher Lange expansion valve NA-10L (ammonia), \$7.00 ea. Henry Valve Co. valve B-502C "Freon" & methyl, \$2.00 ea. Crane Co. std. brass disc angle valve, type #2, 1/4" F.P.T. inlet & outlet, \$1.25 ea. Mueller 2-way 1/4" shut off valve, \$1.25 ea. Henry Valve 1/4" OD relief valve B502-C, \$2.95 ea. Mueller 1/4" OD angle valve, \$1.50 ea. Minn.-Honeywell surface aquastat, LA409-BIXOA1, range 100 to 200 F., \$3.50 ea. U.S. Gauge Co. 2 1/2" compound gauge 30# vac. 60# comp., \$1.50 ea. Faraday Zero Sentinel Alarm System with control and light, \$3.25 complete. Send for free folder. All materials are new, shipped F.O.B. N. Y. No order too small. Don't wait send your order now. TRACO INDUSTRIAL CORPORATION, Dept. 3, 455 Eleventh Ave., New York 18, N. Y. BRYANT 9-1324.

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Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

How To Compute Head Pressure (1)

In a recent article, we explained how to determine the maximum head pressure that should be expected with an air-cooled condensing unit at various room temperatures.

We explained that you merely add 35° to the room temperature and then look up that temperature in an ordinary temperature-pressure table, and the corresponding pressure would be the highest normal head pressure that you should expect at those conditions. If the actual head pressure is higher, then you should find out why.

The reason for the 35° is that as a general rule, manufacturers of air-cooled condensing units equip their units with condensers that are big enough, that is, have enough surface, so that when the unit is loaded to full capacity, and the motor is also loaded to just about all it will take without kicking the overloads, the condensing temperature will be about 35° above room temperature.

Suppose they used a much larger condenser; one that would carry this maximum load and still rise only 25° instead of 35°. Obviously, it would be possible to get a somewhat greater capacity in B.t.u. from the unit at the same motor loading and wattage, for the head pressure would be quite a little lower.

BUYER DETERMINES SPECIFICATIONS AND PRICE

But it would cost more money. They wouldn't mind spending more money to put on this larger condenser, but you would! You, that is the trade in general, just wouldn't spend that extra money. You would buy the competitor's unit with the smaller condenser, sized on a basis

of a 35° temperature difference between the condenser and room air. In a competitive market, you, the buyer, set the price and the specifications, not the manufacturer.

But to get back to the condenser and the head pressure that you can expect with it.

The above referred to the maximum head pressure at the maximum capacity of the unit, and with the maximum allowable motor loading—with the room temperature on which these maximums are based, usually taken at not less than 100°. But the condensing unit does not operate at these maximums all the time. It operates on the maximums only occasionally, rarely perhaps.

EFFECT OF EVAPORATOR TEMPERATURE

These maximums depend upon the suction pressure as well as room temperature, and of course, the suction pressure depends upon the evaporator temperature. If the evaporator temperature is high, the suction pressure is high. If the evaporator temperature is low, the suction pressure is low.

Moreover, the capacity of a condensing unit varies just about as the suction pressure. If the suction pressure (and evaporator temperature) is high, the capacity of the unit in B.t.u. is high. If the suction pressure (and again the evaporator temperature) is low, the capacity of the unit in B.t.u. is low.

If the suction temperature and evaporator temperature keep going up, the capacity goes up, but the load on the motor goes up too, so that finally the motor will stand no more. This is the point at which the motor overload protector is set to open and stop the motor. Just below this point is where the condensing temperature for an air-cooled unit is 35° above room temperature.

Manufacturers, by mutual agreement, make three types of condensing

units based on the temperature applications on which they are to be used.

1. Low-temperature units for use on ice cream cabinets, freezers, and other applications in which the average evaporator temperature during normal operation is never above 5°.

2. Medium-temperature units, for use on cases, coolers, reach-ins, etc., in which the average evaporator temperature during normal operation is never above 25°.

3. High-temperature units, for air conditioning systems, window units, and some industrial applications in which the average evaporator temperature during normal operation is never above 45°.

The three evaporator temperatures 5°, 25°, and 45° are maximum average evaporator temperatures. Above those temperatures, the motor is overloaded to the point where its overload protector may "blow" and stop the motor. Also, it is at these three evaporator temperatures that the highest head pressures may be expected; it is there that the 35° temperature difference between the air-cooled condenser and the room air is to be expected.

So a low-temperature unit with a 5° evaporator is just as heavily loaded, as far as the motor and condenser are concerned, as the medium-temperature unit is at 25°, and the high-temperature unit is at 45°.

Or, putting it another way, the head pressure, for any given room temperature, should be just the same for a low-temperature unit operating on a 5° evaporator, as a medium-temperature unit operating on a 25° evaporator, or a high-temperature unit operating on a 45° evaporator. In all three cases, the condenser will be 35° above room temperature, for the three evaporator temperatures are maximums.

(To Be Continued)

Electric Home Program Goes to Indianapolis

INDIANAPOLIS—Indianapolis has been selected for further developing a new program to show that families at any income level can enjoy "better living through better planning" of their homes, according to H. T. Prichard, president of the Indianapolis Power & Light Co.

Four model homes in a wide range of price classes are being built by four well-known Indianapolis builders as a part of the program. The houses will be opened for public inspection in October.

The complete planning of the homes, from original design to decoration and equipment, has been coordinated under the sponsorship of the Indianapolis Power & Light Co. and the Better Home Bureau of the Westinghouse Electric Corp.

The local program is based on three years of intensive research, particularly in kitchen and laundry planning, both by the Better Homes Bureau and the Home Economics Institute of the Westinghouse Electric Appliance Div. A. Carl Bredahl, manager of the Westinghouse Better Homes Bureau explained:

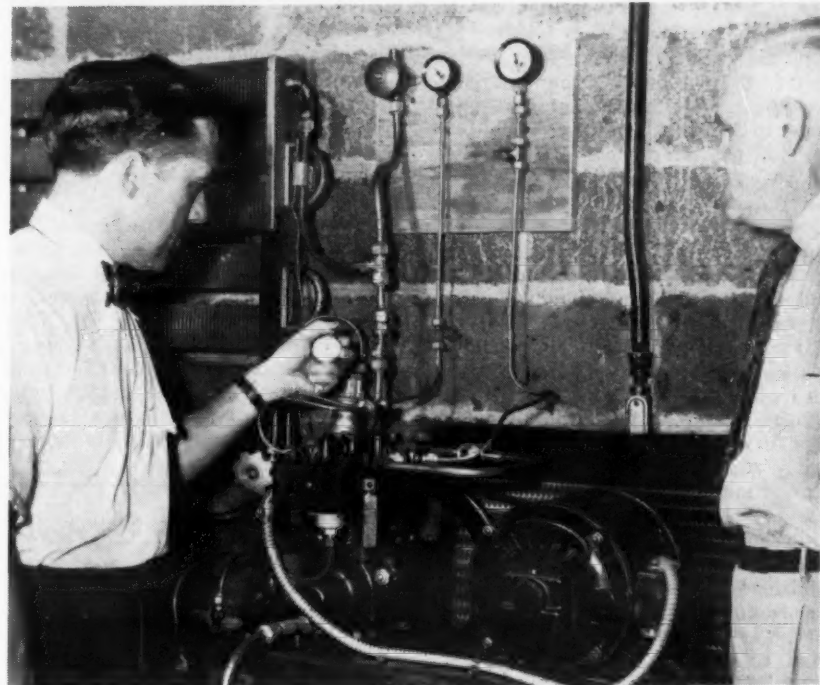
"We felt this research was needed because the rapid increase in the number of wired homes and the amount of electricity used in each home indicated that electrical living has become an essential ingredient in the American way of life. As a result we have established four standards or degrees of electrical installation to help families select the one they want and can afford."

Sales Engineer Wanted

High type Sales Engineer with an engineering background and real sales ability to call on high class accounts, must have experience in sales and ability to train men to sell condensing units and refrigeration equipment. Send full particulars, age, photograph, and references with application.

Box 3256, Air Conditioning & Refrigeration News

Timing Travel Through a Refrigeration System



Gene Wallwork (left), vice president of Wallwork Bros., Newark refrigeration wholesaler, acts as timer at a recent test which showed that Thawzone, a liquid dehydrant, makes a complete round trip of a ½-hp. refrigeration unit in 42 seconds. L. V. Gardner, general manager of Highside Chemicals Co., is at the right.

Liquid Dehydrant Travels Through a System In 42 Seconds, Tests on Conventional Unit Show

CLIFTON, N. J.—In order to determine the speed of distribution of Thawzone liquid dehydrant through a typical refrigeration unit, special tests were conducted here recently by Highside Chemicals Co.

It was found that Thawzone travels through the unit at about the speed of the refrigerant which is from 100 to 2,000 ft. per minute depending upon the diameter of the tubing, whether highside or lowside, etc. The time required for a completed circuit of a conventional ½-hp. unit was only 42 seconds.

An official of Highside Chemicals Co. pointed out that the test showed that Thawzone becomes mixed with all of the refrigerant and that it quickly reaches every part of the unit containing refrigerant.

Gene Wallwork, vice president of Wallwork Bros., Newark, N. J., re-

frigeration wholesaler, timed the final test. The Thawzone was added at the suction service port of a conventional ½-hp. unit charged with "Freon-12". The compressor was started and 42 seconds later the Thawzone refrigerant mixture was seen in the sight glass in the return suction line, indicating that it had passed through condensers, receiver, expansion valve, and coil.

The unit contained 4 lbs. of refrigerant. One-half oz. (4 teaspoonfuls) of Thawzone was used. The Thawzone was specially colored for the test in order to make its progress visible.

Bailey Furniture Names Mgr.

ATLANTA—Appointment of Wills W. Howington as manager of the Bailey Furniture Co., here, has been announced.

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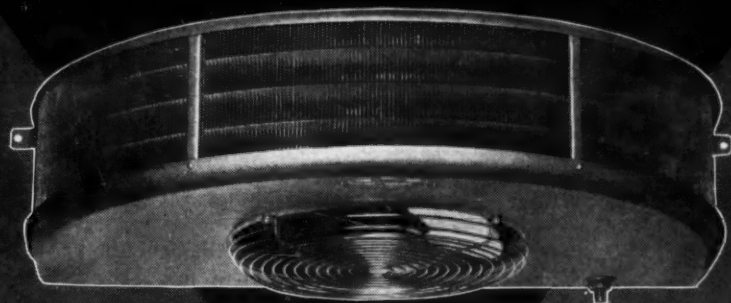
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Stocked and sold by leading Refrigeration Wholesalers

BETZ CORPORATION
HAMMOND INDIANA

Rail Rate Boost--

(Concluded from Page 1, Column 4)

from the rails to trucks is a growing trend. In a bulky document supporting its latest freight rate increase order, the Commission said:

"Prior to the general increases in rail rates effective in 1948, frozen food moved almost entirely by rail. Since that time, much of the short-haul traffic has been diverted to motor trucks, both common and contract carriers, at rates—including refrigeration—which are less than the rail rates exclusive of refrigeration."

Until comparatively recent years, there were few trucks or truck trailers available with refrigeration units capable of maintaining sufficiently low temperatures to haul frozen foods satisfactorily. But post-war refrigeration developments in this respect have been encouraging.

For example, the U. S. Fish & Wildlife Service reported recently on a cross-country haul of frozen fresh halibut and salmon from Seattle, Wash. to Chicago. The shipment consisted of 40,000 pounds. The temperature inside the truck when it left Seattle was 0° F. It had risen to only 10° F. on the morning of the seventh day, upon arrival in Chicago. Drivers of the truck said greater loads than those handled on the experimental trip could be carried with ease.

Accurate statistics are lacking on the number of refrigerated trucks currently in operation. The I.C.C. does not break down its figures on interstate motor carriers by type of service. The American Trucking Association also has no complete listing of firms with refrigerated truck routes.

R. V. Money Elected President Of St. Petersburg RSES Group

ST. PETERSBURG, Fla.—R. V. Money has been elected president of the Sunshine chapter, Refrigeration Service Engineers Society.

Other new officers are S. C. Petty, vice president; F. G. Von Lene, secretary; R. T. Duke, treasurer; Bill Burton, sergeant-at-arms; and P. D. Shaw, educational chairman.

Dept. Store Dollar Volume Slips During Aug. 6 Week

WASHINGTON, D. C.—A 13% decline in the dollar volume of department store sales in the week ended Aug. 6, compared with the corresponding period a year ago, has been reported by the Federal Reserve Board.

Sales during the period from Jan. 1 to Aug. 6 averaged 5% less than in the like 1948 period.

Decreases from last year were reported by all districts for the Aug. 6 week, the sharpest (16%) being in Philadelphia and Kansas City areas. Sales in the Richmond district, which had been the only one reporting increases lately, were off 14%.

Ft. Worth 2-Deck Bus Sports Separate Air Conditioner For Each Level

FORT WORTH, Tex.—Two separate air conditioning units have been incorporated in the new "Continental Coach" intercity bus now going into service for the Continental Trailways Bus System here.

Built by ACF-Brill, the new bus is of deck-and-a-half design, the first and forward deck seating 12 passengers and driver, while the upper deck accommodates 20.

One air conditioning unit supplies cooled air to the lower deck, while the second system handles the upper deck. The units are independently controlled to provide optimum comfort conditions in each section.

All windows in the coach, including the upper deck windshield, are fitted with a heat-absorbing glass to reduce solar radiation. Window curtains are of woven plastic material said to exclude the direct rays of the sun while permitting full view.

Buffet service (complete with hostess) which will be similar to that of the air lines is among the other features claimed for the new coach.

Increased baggage space is another, the space in the rear beneath the upper deck providing a 90-cu. ft. baggage area where trunks can be handled.

Program for Locker Operators' Meeting--

(Concluded from Page 1, Column 4)

locker operators, there will be such features as the first annual National Ham Show on Monday evening, and cocktails and a dinner-dance complete with floor show on Tuesday evening.

Annual business session of the association will be held from 10 to 12 Monday morning and will include the election of officers.

The complete program for the convention follows:

SUNDAY, AUG. 28

10 a.m. to 8 p.m.—Registration.
1 p.m.—Exhibits open.

MONDAY, AUG. 29

7:30 to 9 a.m.—Breakfast sessions: "Slaughtering," Roy Snyder, chairman.

"Operating Costs and Income," Louis Uhrig, chairman.

"Home Units and the Locker," Norman Ralston, chairman.

9 a.m.—Exhibits open.

10 a.m. to 12 noon—Business session, including reports of present officers and election of new officers.

1:45 to 3 p.m.—Clinics:

"Fruit and Vegetable Processing," George Schlageter, chairman.

"Fish and Seafood Merchandising," Charles Trigg, chairman.

"Plant Construction, Remodeling, and Maintenance," E. G. Spencer, chairman.

3:15 to 4:30 p.m.—Clinics:

"Home Units and Locker Service," Marion Sargent, chairman.

"Frozen Food Merchandising,"

"Advertising, Direct Mail," Douglas Quereau, chairman.

6:30 p.m.—First annual National Ham Show.

TUESDAY, AUG. 30

7:30 to 9 a.m.—Breakfast sessions: "Slaughtering," Roy Snyder, chairman.

"Operating Costs and Income," Louis Uhrig, chairman.

"Curing and Smoking," discussion led by ham show board.

9 a.m.—Exhibits open.

10 a.m. to 12 noon—Advertising and public relations:

"The Surplus Food Program and Your Locker Plant," H. E. Bolin.

"Why Four Million Families Use Lockers," Marvin Schaars, S. Wendell McKinzie.

"Salesmanship—A Lost Art," O. J. McClure.

1:45 to 3 p.m.—Clinics:

"Advertising and Selling," O. J. McClure.

"Fruit and Vegetable Processing," Leonard Braham, chairman.

"Poultry Processing and Packaging," Jerry Drake, chairman.

3:15 to 4:30 p.m.—Clinics:

"Fish and Seafood Merchandising," Charles Trigg, chairman.

"Plant Construction, Remodeling, and Maintenance," Mel Stewart, chairman.

"Fruit and Vegetable Processing and Packaging," Carlos Mills, J. D. Winter, chairman.

6 p.m.—Cocktails, Normandie lounge.

7 p.m.—Dinner, floor show, dancing.

WEDNESDAY, AUG. 31

7:30 to 9 p.m.—Breakfast sessions: "Slaughtering," David MacKintosh,

chairman.

"Operating Costs and Income," L. B. Mann, chairman.

"Home Units and Locker Service," Harvey Platt and Mrs. Earhart, chairmen.

10 a.m. to 12 noon—"Merchandising," E. W. Williams, R. H. Chambers, Warren S. Dills, Mrs. Earhart.
1:30 to 3 p.m.—Cutting and wrapping contest.

The list of exhibitors for the NFFLA convention includes the following:

Graham Paper Co.; Crosley Div., Avco Mfg. Corp.; Dalaco Div., Bishop-Stansell Co.; The C. Schmidt Co.; Crown Cork Specialty Corp.; The Coolerator Co.

Baker Refrigeration Corp.; The Koch Butchers' Supply Co.; Pittsburgh-Erie Saw Corp.; Cube Steak Machine Co.; Toledo Scale Co.; Pickwick Co.; Far-Zuperior, Inc.; D. R. Card Co.; International Harvester Co.; Industrial Tape Corp.

Quick Frozen Foods; Darling & Co.; Minnesota Mining & Mfg. Co.; Brooks Paper Co.; Chilli-O Frozen Foods, Inc.; The Griffith Laboratories; The Philco Corp.; The Hobart Mfg. Co.; Morton Salt Co.; Meat Industry Suppliers; Associated Bag & Apron Co.; The Biro Mfg. Co.; Fish Distributors Cooperative Association.

Ray Sullivan Heads Bendix Factory Branch In Chicago

CHICAGO—New manager of the Chicago factory branch of Bendix Home Appliances is Ray Sullivan, formerly associated with Maytag Co. in its range department. He replaces E. J. Kanker, who resigned to retire.

Sales of Refrigerators, Washers In Chattanooga Surpass June, '48 Mark

CHATTANOOGA, Tenn.—Refrigerators, clothes washers, and dryers sold better here in June of this year than they did in June, 1948, reports issued by the Electric Power Board of Chattanooga revealed recently.

Refrigerator sales were up 13% over last year, washer sales 25%, and clothes dryer sales 233%. Dryer sales were the only one of the trio to do better than the preceding month, however. They were up 25% over May while refrigerator and washer sales were down 1% each.

May was generally a better sales month than June except for dishwashers which racked up a 30%

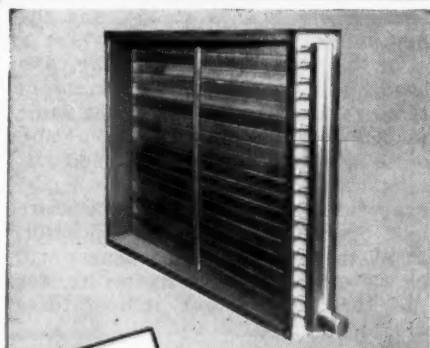
higher volume in June and garbage disposers which doubled their sales in the sixth month.

Sales of all other appliances were off from both May and last year. Home freezers were down 43 and 34% respectively, ranges 10 and 16%, water heaters 17 and 31%, ironers 20 and 47%, and vacuum cleaners 36 and 31%.

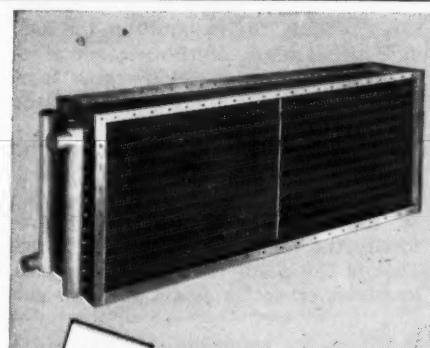
Commercial refrigeration equipment and air conditioning sales were generally a little better than May but off from June of 1948.

Unit sales, average unit price, and total sales value of June appliance sales were as follows:

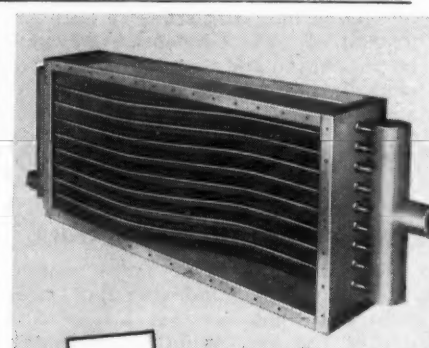
Appliance	Unit Sales	Average Unit Price	Total Sales Value
Refrigerators	889	\$ 268.45	\$238,652.05
Home Freezers	26	339.65	8,830.90
Ranges	513	241.50	123,889.50
Water Heaters	191	125.65	23,999.15
Ironers	19	168.39	3,199.41
Vacuum Cleaners	691	73.90	51,064.90
Clothes Washers	576	168.33	96,958.08
Clothes Driers	10	234.85	2,348.50
Dishwashers	14	332.75	4,658.50
Garbage Disposals	4	126.20	504.80
Air Conditioning Units	19	1,636.62	31,095.75
Refrigerators, Commercial	4	657.00	2,628.00
Freezing Cabinets	2	475.00	950.00
Beverage Coolers	43	353.08	10,882.50
Soda Fountains	2	1,158.25	2,316.50
Ice Makers, Water Coolers	9	647.97	5,831.70



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are available in standard fin lengths and heights... correctly circuited for minimum water pressure drop while maintaining maximum operating efficiency. Headers sized for proper distribution.



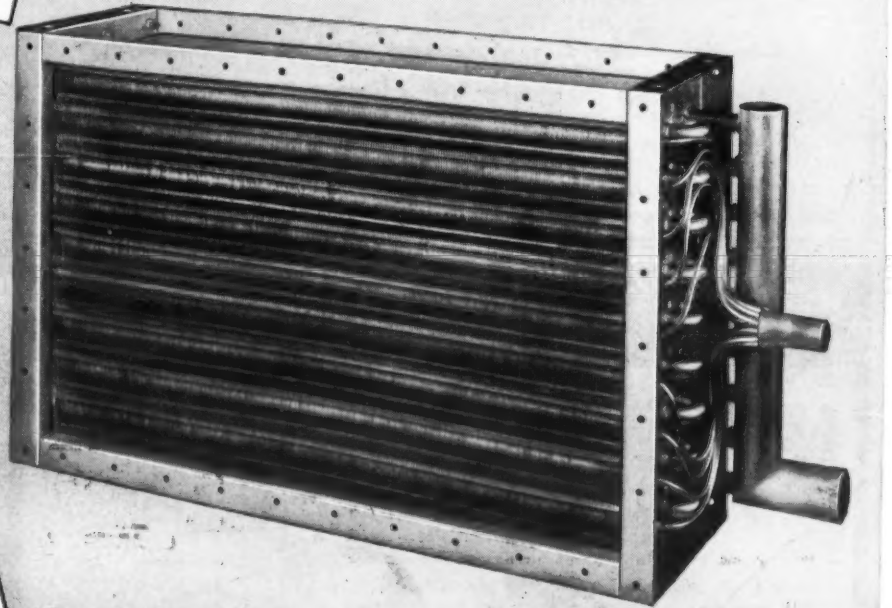
3 BUSH STANDARD STEAM HEATING COILS
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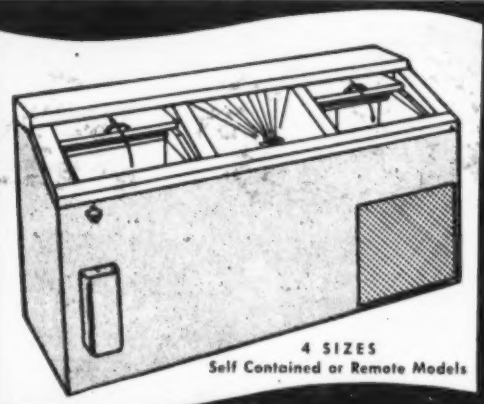
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